COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	University of Virginia
Facility Name:	University of Virginia
Facility Location:	University of Virginia Campus Charlottesville, Virginia
Registration Number:	40200
Permit Number:	VRO40200

November 17, 2011
Effective Date

November 16, 2016
Expiration Date

-signed original-
Regional Director

November 16, 2011
Signature Date

Table of Contents

I. Facility Information

Permittee
University of Virginia
Charlottesville, Virginia

Responsible Official
Mr. Michael Strine
Executive Vice President and Chief Operating Officer

Facility
University of Virginia
P. O. Box 400228
Charlottesville, VA 22904-4228

Contact Person
Mr. Jeffrey A. Sitler, CPG
Environmental Compliance Manager
(434) 982-4901

County-Plant Identification Number: 51-540-0003

Facility Description:

SIC Code: 8221 – Colleges/Universities

NAICS Equivalent Code: 611310 – Colleges, Universities and Professional Schools

The University of Virginia (UVA) is a publicly funded institute for higher education located in Charlottesville, Virginia. UVA is an extensive campus with facilities including classrooms, dormitories, laboratories, medical center, athletic complexes, research facilities, and various support facilities. Emissions sources at UVA consist of a Main Heating Plant (MHP), two smaller heating plants, a coal and ash handling system, other fuel burning equipment, electrical generators, woodworking equipment and medical equipment.

Main Heating Plant

The MHP currently consists of a total of five boilers of differing sizes to produce steam for heat and related university operations, in addition to a lime storage silo to support scrubber operations:

- INDECK Coal and Natural Gas-fired Boiler with a maximum rated heat input capacity of 95 MMBtu/hr (Boiler 1R – Ref. No. 7103-1-01R)

- IBW Coal and Natural Gas-fired Boiler with a maximum rated heat input capacity of 95 MMBtu/hr (Boiler 2R – Ref. No. 7103-1-02R)
- Nebraska Natural Gas and Distillate Oil-Fired Boiler with a maximum rated heat input capacity of 112.5 MMBtu/hr (Boiler 3R – Ref. No. 7103-1-03R)
- Nebraska Natural Gas and Distillate Oil-Fired Boiler with a maximum rated heat input capacity of 112.5 MMBtu/hr (Boiler 4R – Ref. No. 7103-1-04R)
- Keeler Coal and Natural Gas-Fired Boiler with a maximum rated heat input capacity of 112.5 MMBtu/hr (Boiler 5 – Ref. No. 7103-1-05)
- SPE Lime Storage Silo

Coal and Ash Handling System at Main Heat Plant

Coal is transported to the coal handling facility mostly via railcar, although during emergency situations coal can be delivered by trucks. The coal handling system consists of four coal silos, three coal bunkers and miscellaneous coal conveyors and material handling equipment. The ash handling system consists of two ash storage silos with associated conveyance and unloading systems.

Other Fuel Burning Equipment

Due to the extensive nature of the UVA academic campus, it is not feasible for the Main Heating Plant to provide heat and steam to all of the contiguous buildings. Therefore, some facilities maintain separate furnaces and small boilers for the purposes of providing building heat and hot water. These smaller units burn either distillate oil or natural gas.

Electrical Generators

UVA maintains emergency electrical generators across campus. The generators are fueled with diesel fuel (distillate oil), natural gas, or propane. The generators range in size up to 2,500 kilowatts (kW). In 2010, UVA enrolled all its generators in an Emergency Load Response Program (ELRP). Operation of each emergency electrical generator is less than 500 hours per year.

Woodworking Equipment

Maintenance activities performed at UVA include woodworking. UVA has several woodworking shops throughout the campus. Small-job painting and finishing are performed in addition to woodworking at most of the shops. Operations at these locations do not include the manufacturing of wood furniture. Manufacturing of wood furniture takes place at the Facilities Management (FM) - Cabinet Shop. The actual woodworking operations generate particulate emissions, which in the case of the Facilities Management-Cabinet Shop (Ref. 0245-1-01), are discharged via a baghouse filtering system.

Medical Equipment

UVA maintains two ethylene oxide sterilizers for hospital use. The sterilizers are located at the University's hospital and are used to sterilize various surgical and other medical equipment. These sterilizers are exempt from Subpart O MACT requirements under 40 CFR 63.360 (e), and from Subpart WWWWW MACT under 40 CFR 63.10382 (a).

II. Emission Units

Equipment to be operated consists of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Main Heating Plant							
7103-1-01R	7103-1	BOILER 1R – INDECK (2007) (Coal) BOILER 1R – INDECK (2007) (Natural Gas)	95 Million BTU/hr	Baghouse, Semi-dry Scrubber, Flue-gas recirculation (FGR) system, over-fire air & Low NOx Burner	7103-BH1R & 7103-SB1	PM-10 , Lead, SOx, and NOx	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
7103-1-02R	7103-1	BOILER 2R – IBW (1987) (Coal) BOILER 2R – IBW (1987) (Natural Gas)	95 Million BTU/HR	Baghouse, Semi-dry Scrubber, Flue-gas recirculation (FGR) system, over-fire air & Low NOx Burner	7103-BH2R & 7103-SB2	PM-10 , Lead, SOx, and NOx	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
7103-1-03R	7103-1	BOILER 3R – Nebraska (2005) (Distillate Oil) BOILER 3R – Nebraska (2005) (Natural Gas)	112.5 Million BTU/HR	Flue-gas recirculation (FGR) system & Low NOx Burner	-	NOx	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
7103-1-04R	7103-1	BOILER 4R – Nebraska (2005) (Distillate Oil) BOILER 4R – Nebraska (2005) (Natural Gas)	112.5 Million BTU/HR	Flue-gas recirculation (FGR) system & Low NOx Burner	-	NOx	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
7103-1-05	7103-1	BOILER 5 – Keeler (1985) (Coal) BOILER 5 – Keeler (1985) (Natural Gas)	112.5 Million BTU/HR	Baghouse, Semi-dry Scrubber, Flue-gas recirculation (FGR) system, over-fire air & Low NOx Burner	7103-BH5 & 7103-SB5	PM-10 , Lead, SOx, and NOx	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
7103-LM1	-	SPE Lime Storage Silo (2006)	3,900 ft^3	Cartridge filter	-	PM-10	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
Coal and Ash Handling System							
H1A, H1B, H2A, H2B, H3A, H3B, H4A and H4B	-	Railcar Coal Receiving Hoppers	20 tons/hr (each)	(inside closed building)	-	PM-10	7/23/07 Permit (Amended 4/9/09)
GS1, GS2, GS3, GS4, GS5, GS6, GS7 and GS8	-	Grizzly Screens	400 tons/hr (total)	(inside closed building)	-	PM-10	7/23/07 Permit (Amended 4/9/09)
C1 and C3	-	Coal Conveyors from Grizzly Screens to Chain Elevator	40 tons/hr (each)	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
C2 and C4	-	Coal Conveyors from Grizzly Screens to Chain Elevator	80 tons/hr (each)	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
E1	-	Coal Chain Elevator	80 tons/hr	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
CCS1	-	Coal Crusher Screen	80 tons/hr	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
CR1	-	Coal Crusher	25 tons/hr	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
C5	-	Conveyor from Crusher to Bucket Elevator	80 tons/hr	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
E2	-	Bucket Elevator	80 tons/hr	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
C6	-	Coal Conveyor from Bucket Elevator to Coal Silos	80 tons/hr	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
7103-CS1	7103-CS1	Storage Coal Silo	1,100 ton	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
7103-CS2	7103-CS2	Storage Coal Silo	1,100 ton	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
7103-CS3	7103-CS3	Storage Coal Silo	1,100 ton	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
7103-CS4	7103-CS4	Storage Coal Silo	1,100 ton	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
C7, C8, C9, and C10	-	Coal Conveyors from Silos to Chain Elevators	20 tons/hr (each)	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
E3 and E4	-	Coal Chain Elevators	20 tons/hr (each)	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
C11 and C12	-	Coal Conveyors from Chain Elevator to Coal Bunker	20 tons/hr (each)	Complete enclosure	-	PM-10	7/23/07 Permit (Amended 4/9/09)
B1, B2, and B5	-	Coal Bunkers	80 tons/hr (each)	Cartridge filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
FAS	FSS-1 to FSS-3	Fly Ash Silo	325 tons	Fabric filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)
BAS	BAS-1 to BAS-2	Bottom Ash Silo	112.9 tons	Fabric filter	-	PM-10	7/23/07 Permit (Amended 4/9/09)

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Other Fuel Burning Equipment							
0580-2-01	0580-2	Cleaver Brooks Model # CB 200-40 (1970) (#2 Fuel Oil) Carruthers Hall Cleaver Brooks Model # CB 200-40 (1970) (Natural Gas)	1.7 Million BTU/HR	-	-	-	-
0603-1-01	0603-1	Weil-McLain Model # 788 (1991) (#2 Fuel Oil) Faulkner House Weil-McLain Model # 788 (1991) (Natural Gas)	1.6 Million BTU/HR	-	-	-	-
1600-1-01	1600-1	NRC Model #9-47 (1991) (#2 Fuel Oil) KCRC	1.1 Million BTU/HR	-	-	-	-
1760-2-01	1760-2	Cleaver Brooks Model CB/LE 700-250-125 HW (Natural Gas) Sheridan G. Snyder Building	10.2 Million BTU/hr	-	-	-	-
1760-2-02	1760-2	Cleaver Brooks Model CB/LE 700-250-125 HW (Natural Gas) Sheridan G. Snyder Building	10.2 Million BTU/hr	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
5575-1-01	5575-1	Unilux Bent Water Tube Model ZF1200 (2005) (Natural Gas) Massie Road Heat Plant (JPJ Parking Garage) Unilux Bent Water Tube Model ZF1200 (2005) (Distillate Oil)	12.0 Million BTU/HR	- -	- -	- -	- 10/13/04 Permit (Amended 3/22/10)
5575-1-02	5575-1	Unilux Bent Water Tube Model ZF1200 (2005) (Natural Gas) Massie Road Heat Plant Unilux Bent Water Tube Model ZF1200 (2005) (Distillate Oil)	12.0 Million BTU/HR	-	-	-	10/13/04 Permit (Amended 3/22/10)
5575-1-03	5575-1	Unilux Bent Water Tube Model ZF1200 (2005) (Natural Gas) Massie Road Heat Plant Unilux Bent Water Tube Model ZF1200 (2005) (Distillate Oil)	12.0 Million BTU/HR	-	-	-	10/13/04 Permit (Amended 3/22/10)
5575-1-04	5575-1	Unilux Bent Water Tube Model ZF1200 (2005) (Natural Gas) Massie Road Heat Plant Unilux Bent Water Tube Model ZF1200 (2005) (Distillate Oil)	12.0 Million BTU/HR	-	-	-	10/13/04 Permit (Amended 3/22/10)

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
5576-1-01	5576-1	Cleaver Brooks Model #CB 428-300 (1964) (#2 Fuel Oil) University Hall Cleaver Brooks Model #CB 428-300 (1964) (Natural Gas)	12.6 Million BTU/HR	-	-	-	-
5576-1-02	5576-1	Cleaver Brooks Model #CB 428-300 (1964) (#2 Fuel Oil) University Hall Cleaver Brooks Model #CB 428-300 (1964) (Natural Gas)	12.6 Million BTU/HR	-	-	-	-
5577-1-01	5577-1	Kewanee Model #L3W-250-GD2 (1990) (#2 Fuel Oil) Frank C. McCue Center Kewanee Model #L3W-250-GD2 (1990) (Natural Gas)	10.7 Million BTU/HR	-	-	-	3/29/90 (Amended 11/14/90)
7533-1-01	7533-1	FLO-KNTRL #1 (1973) (Natural Gas) North Grounds Heat Plant FLO-KNTRL #1 (1973) (#2 Fuel Oil)	15 Million BTU/HR	-	-	-	-
7533-1-02	7533-1	FLO-KNTRL #2 (1973) (Natural Gas) North Grounds Heat Plant FLO-KNTRL #2 (1973) (#2 Fuel Oil)	15 Million BTU/HR	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Electrical Generators and Fire Pumps							
0068-1-01	0068-1	Kohler 500ROZD4/Gen 5M4027 Emergency Generator (Diesel) Clark Hall	505 kW	-	-	-	-
0094-1-01	0094-1	Kohler Model 125REOJB-GA7 Emergency Generator (Diesel) Bryan Hall	125 kW	-	-	-	-
0122-1-01	0122-1	Olympian Model 96A-01830-S Emergency Generator (Diesel) Newcomb Hall	20 kW	-	-	-	-
0125-1-01	0125-1	Kohler Model 15ROZ81 Emergency Generator (Diesel) Central Grounds Garage	15 kW	-	-	-	-
0126-1-01	0126-1	Kohler Model 300 REOZD Emergency Generator (Diesel) Clemons Library	300 kW	-	-	-	-
0131-1-01	0131-1	Caterpillar Model D150-8 Emergency Generator (Diesel) Elson Student Health	150 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
0201-1-01	0201-1	Kohler Model 150REOZJB Emergency Generator (Diesel) OHill Dining	160 kW	-	-	-	-
0207-1-01	0207-1	Olympian Model D230P1 Emergency Generator (Diesel) Zehmer Hall	230 kW	-	-	-	-
0210-1-01	0210-1	Kohler Model 300ROZ71 Emergency Generator (Diesel) Gilmer Hall	300 kW	-	-	-	-
0210-2-01	0210-2	Kohler Model 260RHOZ71 Emergency Generator (Diesel) Gilmer Hall	260 kW	-	-	-	-
0210-3-01	0210-3	Olympian Model 97A 04381S Emergency Generator (Diesel) Gilmer Hall-Chemistry Loading Dock	175 kW	-	-	-	-
0210-4-01	0210-4	Olympian Model 93A01427-S BD13P2 Emergency Generator (Diesel) Gilmer Hall-Chemistry Loading Dock	13 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
0214-1-01	0214-1	Caterpillar Model C9 (Diesel) Rice Hall	300 kW	-	-	-	-
0215-1-01	0215-1	Caterpillar Model C32 DITA (Diesel) CAS Building	1000 kW	-	-	-	-
0228-1-01	0228-1	Kohler Model 55RO71 Emergency Generator (Diesel) Leake Building	60 kW	-	-	-	-
0256-1-01	0256-1	Caterpillar Model D333 Emergency Generator (Diesel) Chemistry Loading Dock	125 kW	-	-	-	-
0256-2-01	0256-2	Generac Model SD0040 Emergency Generator (Diesel) Chemistry Loading Dock	40 kW	-	-	-	-
0256-3-01	0256-3	Kohler Model 180REOZJD Emergency Generator (Diesel) Chemistry Loading Dock	180 kW	-	-	-	-
0264-1-01	0264-1	Caterpillar Model C9 Emergency Generator (2009) (Diesel) Bavaro Hall	250 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
0267-1-01	0267-1	Kohler Model 1000REOZDB Emergency Generator (Diesel) Wilsdorf Hall	975 kW	-	-	-	-
0396-1-01	0396-1	Generac Model 91A02361-5 Emergency Generator (Propane) Runk Dining Hall	40 kW	-	-	-	-
0401-1-01	0401-1	Kohler Model 180REOZJB Emergency Generator (Diesel) Central Garage	180 kW	-	-	-	-
0446-1-01	0446-1	Kohler Model 100 REOZJD Emergency Generator (Diesel) Culbreth Road Garage	100 kW	-	-	-	-
0527-1-01	0527-1	Onan Model 200-DFR-17R/17911K Emergency Generator (Diesel) Withers-Brown Hall	200 kW	-	-	-	-
0528-1-01	0528-1	Generac Model 20A04051-S Emergency Generator (Diesel) Slaughter Hall – ITC	75 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
0534-1-01	0534-1	Kohler Model 125ROZ271 Emergency Generator (Diesel) JAG School Addition	125 kW	-	-	-	-
0552-1-01	0552-1	Cummins Model (U) DFCB-4962632 Emergency Generator (Diesel) Darden Faculty	300 kW	-	-	-	-
0555-1-01	0555-1	Onan Model GGFD-4962633 Emergency Generator (Natural Gas) Darden Parking Garage	35 kW	-	-	-	-
0594-1-01	0594-1	Clark Model JU4H UFAD4G Fire Pump (Diesel) Ivy Stacks Pump House	100 hp	-	-	-	-
0599-1-01	0599-1	Caterpillar Model 3516 CDITA Emergency Generator (Diesel) 2476 Old Ivy Road	2500 kW	-	-	-	6/9/10
0627-1-01	0627-1	Kohler Model 30RZ282 Emergency Generator (Natural Gas) UVA Police Station	33 kW	-	-	-	-
1142-1-01	1142-1	Kohler Model 2000REOZMB Emergency Generator (Diesel) Jordan Hall (Old)	2000 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1142-2-01	1142-2	GE Model (G) 1500 DFMB Emergency Generator (Diesel Fuel) Jordan Hall Addition	1500 kW	-	-	-	-
1142-3-01	1142-3	Generac Model 486350100 Emergency Generator (Diesel) Old Jordan Vivarium	230 kW	-	-	-	-
1143-1-01	1143-1	Onan Model 230-0-DFM-17R-16896 Emergency Generator (Diesel) Primary Care	250 kW	-	-	-	-
1146-1-01	1146-1	Caterpillar Model C9 DITA Emergency Generator (Diesel) Emily Couric Clinical Cancer Center	250 kW	-	-	-	-
1148-1-01	1148-1	Caterpillar Model 3512 Emergency Generator (Diesel) Lee Street Garage - Hospital	910 kW	-	-	-	-
1148-2-01	1148-2	Caterpillar Model 3512 Emergency Generator (Diesel) Lee St Garage - Hospital	910 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1148-3-01	1148-3	Caterpillar Model 3512 Emergency Generator (Diesel) Lee St Garage – Hospital	910 kW	-	-	-	-
1148-4-01	1148-4	Caterpillar Model A6511-20-24V-A Emergency Generator (Diesel) Lee St Garage – Hospital	1076 kW	-	-	-	-
1148-5-01	1148-5	Caterpillar Model C32DITA Emergency Generator (Diesel) Lee St Garage – Hospital	1000 kW	-	-	-	-
1148-6-01	1148-6	Cummins Model N-495-FP Fire Pump (Diesel) Lee St Garage – Hospital	113 hp	-	-	-	-
1149-1-01	1149-1	Caterpillar Model D150-8 Emergency Generator (Diesel) 11th St Garage	150 kW	-	-	-	-
1149-2-01	1149-2	Caterpillar Model 3516C-HC Emergency Generator (Diesel) 11th St Parking Garage	2500 kW	-	-	-	1/12/11 Permit
1149-3-01	1149-3	Caterpillar Model 3516C-HC Emergency Generator (Diesel) 11th St Parking Garage	2500 kW	-	-	-	1/12/11 Permit

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1149-4-01	1149-4	Caterpillar Model 3512C (Diesel) 11th St Parking Garage	1500 kW	-	-	-	1/12/11 Permit
1149-5-01	1149-5	Kohler Model 250REOJE (Diesel) 11th St Parking Garage – Connective Elements	250 kW	-	-	-	-
1154-1-01	1154-1	Kohler Model 80R02J Emergency Generator (Diesel) South Parking Garage	91 kW	-	-	-	-
1155-1-01	1155-1	Onan Model DFLE-4492628 Emergency Generator (Diesel) Biomedical Eng – MR5	1500 kW	-	-	-	-
1161-1-01	1161-1	Caterpillar Model 3516B Emergency Generator (Diesel) Carter-Harrison MR6	2000 kW	-	-	-	12/20/07 Permit (Amended 3/22/10)
1172-1-01	1172-1	Caterpillar Model C18 Emergency Generator (Diesel) Multistory	600 kW	-	-	-	-
1172-2-01	1172-2	Caterpillar Model SR4 Emergency Generator (Diesel) Multistory	260 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1176-1-01	1176-1	Caterpillar Model (U) D3208A Emergency Generator (Diesel) Clinical Wing - Penthouse	50 kW	-	-	-	-
1176-2-01	1176-2	Caterpillar Model (U) 4996195 Emergency Generator (Diesel) Clinical Wing - Lithotripter	150 kW	-	-	-	-
1181-1-01	1181-1	Newage Model D250FPJ4 Emergency Generator (Diesel) Medical School Building - Penthouse	250 kW	-	-	-	-
1194-1-01	1194-1	Cummins Model GFDB-5712916 Emergency Generator (Diesel) Cobb Hall	600 kW	-	-	-	-
1196-1-01	1196-1	Onan Model 500DFFB Emergency Generator (Diesel) Davis Transformer	500 kW	-	-	-	-
1196-2-01	1196-2	Caterpillar Model D337F Emergency Generator (Diesel) Davis Transformer	150 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1600-2-01	1600-2	Olympian Model D75P3 Emergency Generator (Diesel) KCRC	75 kW	-	-	-	-
1600-3-01	1600-3	Caterpillar Model D60P3 Emergency Generator (Diesel) KCRC-ITC	60 kW	-	-	-	-
1760-1-01	1760-1	Kohler Model 2000 REOZMB Emergency Generator (Diesel) Sheridan G. Snyder Bldg	2000 kW	-	-	-	-
1985-1-01	1985-1	Caterpillar Model SR4B Emergency Generator (Diesel) Stacey Hall	1000 kW	-	-	-	-
1998-1-01	1998-1	Caterpillar Model 3412C Emergency Generator (Diesel) Clinical Laboratory	800 kW	-	-	-	-
2368-1-01	2368-1	Generac Model SC200 Emergency Generator (Diesel) Kellogg House	200 kW	-	-	-	-
2371-1-01	2371-1	Cummins Model 400 DFEH Emergency Generator (Diesel) Alderman Dorms Commons	400 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
2464-1-01	2464-1	Caterpillar Model D60P3 Emergency Generator (Diesel) Lambeth Commons	60 kW	-	-	-	-
3656-1-01	3656-1	Kohler Model 40REOZJB Emergency Generator (Diesel) 2400 Old Ivy Road	40 kW	-	-	-	-
3708-1-01	3708-1	Olympian Model D75P3 Emergency Generator (Diesel) UVA Outpatient Surgery	75 kW	-	-	-	-
3759-1-01	3759-1	Caterpillar Model D 150 pl Emergency Generator (Diesel) 400 Ray C Hunt Drive	150 kW	-	-	-	-
3761-1-01	3761-1	Kato Model D1000FR44 Emergency Generator (Diesel) Aurbach Medical Building	1500 kW	-	-	-	-
5271-1-01	5271-1	Kohler Model 100RO2J71 Emergency Generator (Diesel) Aquatic and Fitness Center	100 kW	-	-	-	-
5307-1-01	5307-1	Kohler Model 80ROZJ Emergency Generator (Diesel) Scott Stadium – west	81 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
5307-2-01	5307-2	Kohler Model 300REOZD Emergency Generator (Diesel) Scott Stadium – south	300 kW	-	-	-	-
5307-3-01	5307-3	Kohler Model 350REOZD Emergency Generator (Diesel) Scott Stadium – east	355 kW	-	-	-	-
5502-1-01	5502-1	Generac Model SD080 Emergency Generator (Diesel) Klockner Stadium	80 kW	-	-	-	-
5506-1-01	5506-1	Kohler Model 15OZ Emergency Generator (Diesel) Baseball Stadium	15 kW	-	-	-	-
5575-2-01	5575-2	Cummins Model QSK60 Emergency Generator (Diesel) Massie Road Heat Plant	2000 kW	-	-	-	10/13/04 Permit (Amended 3/22/10)
5576-2-01	5576-2	Caterpillar Model D90P1 Emergency Generator (Diesel) U-Hall ITC	90 kW	-	-	-	-
5576-3-01	5576-3	Caterpillar Model D320A Emergency Generator (Diesel) U-Hall	50 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
7103-2-01	7103-2	Caterpillar Model SR-4 Emergency Generator (Diesel) Main Heat Plant	1250 kW	-	-	-	6/29/05 Permit (Amended 3/22/10)
7103-3-01	7103-3	Caterpillar Model SR-4 Emergency Generator (Diesel) Main Heat Plant	2000 kW	-	-	-	7/5/05 Permit (Amended 11/26/05, 10/19/07, 12/16/09 & 3/22/10)
7147-1-01	7147-1	Caterpillar Model D150-8 Emergency Generator (Diesel) Telephone Exchange	150 kW	-	-	-	-
7185-1-01	7185-1	Kohler Model 1500ROZD4 Emergency Generator (Diesel) South Chiller Plant	1500 kW	-	-	-	-
7533-2-01	7533-2	Caterpillar Model H5452/3 Emergency Generator (Diesel) North Grounds Mech. Plant	150 kW	-	-	-	-
7369-1-01	7369-1	Kohler Model 01938 Emergency Generator (Propane) East Water Tank	10 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Woodworking Equipment							
0245-1-01	0245-1	FM Cabinet Shop: saws, belt sanders and other woodworking and finishing equipment	-	National System Model NSGV 3415 (2001)	0245-BH1	PM-10	-
Medical Equipment							
1150-1-04	1150-1	Ethylene Oxide Sterilizer 3M Model 400DGP Hospital	100g EtO/ 14 hrs	-	-	-	6/29/05 Permit (Amended 3/22/10)
1150-1-05	1150-1	Ethylene Oxide Sterilizer 3M Model 487AGP Hospital	100g EtO/ 14 hrs	-	-	-	6/29/05 Permit (Amended 3/22/10)

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

III. Main Heating Plant

A. Limitations

1. Particulate matter emissions from each boiler (Ref. 7103-1-02R and 7103-1-05) shall be controlled by a baghouse (Ref. 7103-BH2R and 7103-BH5) when firing coal. Each baghouse shall be provided with adequate access for inspection and shall be in operation when the associated boiler is firing coal.
(9 VAC 5-80-110, 9 VAC 5-80-1705 and Condition 2 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

2. The approved fuels for the boilers are as follows:

Emission Unit I.D.	Emission Unit Description	Approved Fuel Type
7103-1-01R	Boiler 1R	Natural Gas and Coal
7103-1-02R	Boiler 2R	Natural Gas and Coal
7103-1-03R	Boiler 3R	Natural Gas and Distillate Oil
7103-1-04R	Boiler 4R	Natural Gas and Distillate Oil
7103-1-05	Boiler 5	Natural Gas and Coal

A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110, 9 VAC 5-80-1705, Condition 3 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10, and Condition 20 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

3. Particulate matter emissions from Boiler 1R (Ref. 7103-1-01R) shall be controlled by a baghouse (Ref. 7103-BH1R) when firing coal. Each baghouse shall be provided with adequate access for inspection and shall be in operation when the associated boiler is firing coal.
(9 VAC 5-80-110 and Condition 7 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

4. Sulfur dioxide emissions from each boiler (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05) shall be controlled by a semi-dry scrubber (7103-SB1, 7103-SB2 or 7103-SB5) when firing coal. Each scrubber shall be provided with adequate access for inspection and shall be in operation when the associated boiler is firing coal.
(9 VAC 5-80-110 and Condition 8 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

5. Each semi-dry scrubber (7103-SB1, 7103-SB2 or 7103-SB5) shall maintain a control efficiency by a continuous emission monitoring system for sulfur dioxide emissions of no less than 92 percent calculated on a 30 day rolling average.
(9 VAC 5-80-110, 40 CFR 60.42c and Condition 9 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

6. Nitrogen oxide emissions from each boiler (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05) shall be controlled by the use of over-fire air (OFA) and flue gas recirculation (FGR) when firing coal. Each boiler shall be provided with adequate access for inspection.
   (9 VAC 5-80-110 and Condition 10 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

7. Nitrogen oxide emissions from each boiler (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) shall be controlled by the use of low-NO_X burners and flue gas recirculation (FGR) when firing natural gas. Each boiler shall be provided with adequate access for inspection.
   (9 VAC 5-80-110 and Condition 11 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

8. Particulate emissions from filling the lime silo (Ref. 7103-LM1) shall be controlled by a cartridge filter. The cartridge filter shall be provided with adequate access for inspection.
   (9 VAC 5-80-110 and Condition 12 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

9. Particulate emissions between the lime silo (Ref. 7103-LM1) and the scrubber shall be controlled by conveying the lime through a closed system directly into the scrubber. The conveyance apparatus shall be provided with adequate access for inspection.
   (9 VAC 5-80-110 and Condition 13 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

10. Total combined annual fuel throughput for all boilers (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) shall not exceed the following limits:

Approved Fuel Type	**Quantity Allowed**
Coal	50,500 tons
OR	
Natural Gas	$3{,}240 \times 10^6$ SCF
Distillate Oil	$1{,}267 \times 10^3$ gallons

    Under no circumstances shall any combination of the fuel amounts result in an exceedance of the annual facility-wide emission limits established in Condition III.A.17. Throughput of each fuel shall be calculated monthly as the sum of each consecutive 12-month period.
    (9 VAC 5-80-110 and Condition 23 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

11. The coal, distillate oil and natural gas to be burned in the boilers (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) shall meet the specifications below:

COAL:	
Minimum heat content per shipment:	11,900 BTU/lb HHV
Minimum average annual heat content:	12,100 BTU/lb HHV
Maximum sulfur content per shipment:	1.4%
DISTILLATE OIL which meets the ASTM specification, or a DEQ-approved equivalent method, for numbers 1 or 2 fuel oil:	
Minimum heat content per shipment:	132,000 BTU/gallon
Minimum average annual heat content:	134,000 BTU/gallon
Maximum sulfur content per shipment:	0.05%
NATURAL GAS:	
Minimum heat content per invoice:	1,000 BTU/ft^3
Minimum average annual heat content:	1,025 BTU/ft^3

(9 VAC 5-80-110 and Condition 24 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

12. Emissions from the boilers (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) shall be controlled by proper operation and maintenance. Operators for the boilers shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at a minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110 and Condition 26 of the of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

13. Short-term emissions from the Boiler 1R (Ref. 7103-1-01R) shall not exceed any of the limits specified below:

	Coal	Natural Gas
Particulate Matter	0.02 lbs/MMBTU	---
(includes condensable PM for gas only)	1.90 lbs/hr	0.72 lbs/hr
PM-10	0.02 lbs/MMBTU	---
(includes condensable PM-10 for gas only)	1.90 lbs/hr	0.72 lbs/hr
Sulfur Dioxide	0.18 lbs/MMBTU(1)	---
	17.10 lbs/hr(1)	0.06 lbs/hr

	Coal	Natural Gas
Oxides of Nitrogen (as NO_2)	0.35 lbs/MMBTU[(1)] 33.25 lbs/hr[(1)]	0.036 lbs/MMBTU[(1)] 3.42 lbs/hr[(1)]
Carbon Monoxide	19.96 lbs/hr	7.98 lbs/hr
Volatile Organic Compounds	0.20 lbs/hr	0.52 lbs/hr

(1) 30-day rolling average

(9 VAC 5-80-110, 40 CFR 60.42c, 40 CFR 60.43c, and Condition 28 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

14. Short-term emissions from boiler 2R (Ref. 7103-1-02R) shall not exceed any of the limits specified below:

	Coal	Natural Gas
Particulate Matter (includes condensable PM for gas only)	0.02 lbs/MMBTU 1.90 lbs/hr	--- 0.72 lbs/hr
PM-10 (includes condensable PM-10 for gas only)	0.02 lbs/MMBTU 1.90 lbs/hr	--- 0.72 lbs/hr
Sulfur Dioxide	0.18 lbs/MMBTU[(1)] 17.10 lbs/hr[(1)]	--- 0.06 lbs/hr
Oxides of Nitrogen (as NO_2)	0.35 lbs/MMBTU[(1)] 33.25 lbs/hr[(1)]	0.036lbs/MMBTU[(1)] 3.42 lbs/hr[(1)]
Carbon Monoxide	19.96 lbs/hr	7.98 lbs/hr
Volatile Organic Compounds	0.20 lbs/hr	0.52 lbs/hr

(1) 30-day rolling average

(9 VAC 5-80-110, 9 VAC 5-80-1705 and Condition 4 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

15. Short-term emissions from Boiler 3R (Ref. 7130-1-03R) shall not exceed any of the limits specified below:

	Natural Gas	Distillate Oil
Particulate Matter (includes condensable PM)	0.86 lbs/hr	2.81 lbs/hr
PM-10 (includes condensable PM-10)	0.86 lbs/hr	1.96 lbs/hr
Sulfur Dioxide	0.07 lbs/hr	6.05 lbs/hr
Oxides of Nitrogen (as NO_2)	0.03 lbs/MMBTU[(1)] 3.38 lbs/hr[(1)]	0.18 lbs/MMBTU[(1)] 20.45 lbs/hr[(1)]
Carbon Monoxide	9.45 lbs/hr[(2)]	4.26 lbs/hr[(2)]
Volatile Organic Compounds	0.62 lbs/hr	0.17 lbs/hr

(1) 30-day rolling average
(2) 8-hour rolling average

(9 VAC 5-80-110, 40 CFR 60.44b and Condition 29 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

16. Short-term emissions from Boiler 4R (Ref. 7130-1-04R) shall not exceed any of the limits specified below:

	Natural Gas	Distillate Oil
Particulate Matter (includes condensable PM)	0.86 lbs/hr	2.81 lbs/hr
PM-10 (includes condensable PM-10)	0.86 lbs/hr	1.96 lbs/hr
Sulfur Dioxide	0.07 lbs/hr	6.05 lbs/hr
Oxides of Nitrogen (as NO_2)	0.03 lbs/MMBTU[(1)] 3.38 lbs/hr[(1)]	0.18 lbs/MMBTU[(1)] 20.45 lbs/hr[(1)]

	Natural Gas	Distillate Oil
Carbon Monoxide	9.45 lbs/hr[(2)]	4.26 lbs/hr[(2)]
Volatile Organic Compounds	0.62 lbs/hr	0.17 lbs/hr

(1) 30-day rolling average
(2) 8-hour rolling average

(9 VAC 5-80-110, 40 CFR 60.44b and Condition 30 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

17. Short-term emissions from Boiler 5 (Ref. 7103-1-05) shall not exceed any of the limits specified below:

	Coal	Natural Gas
Particulate Matter	0.02 lbs/MMBTU	---
(includes condensable PM for gas only)	2.25 lbs/hr	0.86 lbs/hr
PM-10	0.02 lbs/MMBTU	---
(includes condensable PM-10 for gas only)	2.25 lbs/hr	0.86 lbs/hr
Sulfur Dioxide	0.18 lbs/MMBTU[(1)]	---
	20.25 lbs/hr[(1)]	0.07 lbs/hr
Oxides of Nitrogen (as NO_2)	0.35 lbs/MMBTU[(1)]	0.036 lbs/MMBTU[(1)]
	39.38 lbs/hr[(1)]	4.05 lbs/hr[(1)]
Carbon Monoxide	23.63 lbs/hr	9.45 lbs/hr
Volatile Organic Compounds	0.24 lbs/hr	0.62 lbs/hr

(1) 30-day rolling average

(9 VAC 5-80-110, 9 VAC 5-80-1705, 40 CFR 60.43b, 40 CFR 60.44b and Condition 5 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

18. Total boiler (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) emissions shall not exceed the limits specified below:

Particulate Matter	14.40 tons/yr
PM-10	13.77 tons/yr
Sulfur Dioxide	107.46 tons/yr
Oxides of Nitrogen (as NO_2)	213.87 tons/yr

Carbon Monoxide	139.25 tons/yr
Volatile Organic Compounds	9.04 tons/yr

(9 VAC 5-80-110 and Condition 31 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

19. Nitrogen oxides emissions from Boilers 1R, 2R and 5 (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05) during coal-fire startup shall not exceed 0.35 lbs/MMBtu, as provided in Conditions III.A.14, III.A.17 and III.A.13. Coal-fire startup will begin by initially firing the boiler on natural gas and then, after a sufficient warm up period to protect the boiler, will proceed directly to coal as the primary fuel. Coal-fire startup will be deemed successful when coal is added to the boiler, which must occur within five hours of initial boiler startup. In the event that the circumstances preclude the addition of coal to the boiler and the boiler continues to be operated on gas beyond five hours, the startup will be considered a gas startup and will be subject to the gas-fired NOx limit of 0.036 lbs/MMBtu, as provided in Conditions III.A.14, III.A.17 and III.A.13.
(9 VAC 5-80-110 and Condition 32 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

20. Nitrogen oxides emissions from Boilers 1R, 2R and 5 (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05) while simultaneously combusting coal and natural gas during fuel switching shall not exceed 0.35 lbs/MMBTU until coal is no longer fired in the boiler, as provided in Conditions III.A.14, III.A.17 and III.A.13.
(9 VAC 5-80-110, 40 CFR 60.44b and Condition 33 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

21. Visible emissions from the Main Heating Plant stack (Stack Ref. 7103-1) shall not exceed 20 percent opacity (six-minute average), except for one six-minute period per hour of not more than 27 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A) or a DEQ-approved method. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-80, 40 CFR 60.43b, 40 CFR 60.43c and Condition 34 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

22. Visible emissions from lime silo (Ref. 7103-LM1) shall not exceed five percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A) or a DEQ-approved method.
(9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 36 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

23. Except where this permit is more restrictive than the applicable requirement, Boilers 3R, 4R and 5 (Ref. 7103-1-03R, 7103-1-04R and 7103-1-05) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Db.
(9 VAC 5-80-110 and Condition 37 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

24. Except where this permit is more restrictive than the applicable requirement, Boiler 1R (Ref. 7103-1-01R) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.
(9 VAC 5-80-110 and Condition 38 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

25. At all times, including periods of start-up, shutdown, soot blowing, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110, 9 VAC 5-50-20 E and Condition 62 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

B. Monitoring and Recordkeeping

1. Each baghouse (Ref. 7103-BH1R, 7103-BH2R or 7103-BH5) shall be equipped with a device to continuously measure the differential pressure across the baghouse. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the associated baghouse is operating.
(9 VAC 5-80-110, 9 VAC 5-50-20C and Condition 14 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

2. Differential pressure measurements across each baghouse (Ref. 7103-BH1R, 7103-BH2R, 7103-BH5) shall be equipped with audible alarms to detect operation outside of the high and low differential pressure levels suggested by the baghouse manufacturer. The alarm shall be set to sound each time the differential pressure falls

outside the recommended range. Corrective action shall be taken each time the alarm is activated, such that the baghouse is returned to its recommended differential pressure range. The alarm system shall be configured and tested in accordance with approved procedures which shall include, as a minimum, common industry practices. The alarm system shall be in operation when any baghouse is operating.
(9 VAC 5-80-110, 9 VAC 5-50-20C and Condition 15 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

3. Each scrubber (Ref. 7103-SB1, 7103-SB2 and 7103-SB5) shall be equipped with a device to continuously measure the sorbent injection rate. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, at a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the associated scrubber is operating.
(9 VAC 5-80-110, 9 VAC 5-50-20C and Condition 16 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

4. Sorbent injection rate measurements for each scrubber (Ref. 7103-SB1, 7103-SB2 and 7103-SB5) shall be equipped with audible alarms to detect injection rates outside of the high and low sorbent injection rates recommended by the scrubber manufacturer. The alarm shall be set to sound each time the sorbent injection rate is outside the recommended range. Corrective action shall be taken each time the alarm is activated, such that the scrubber is returned to the recommended injection rate. The alarm system shall be configured and tested in accordance with approved procedures which shall include, as a minimum, common industry practices. The alarm system shall be in operation when any scrubber is operating.
(9 VAC 5-80-110, 9 VAC 5-50-20-C and Condition 17 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

5. The devices used to continuously measure the differential pressure across each baghouse (7103-BH1R, 7103-BH2R and 7103-BH5) shall be observed by the permittee not less than once per week of operation. If during the observation the differential pressure is not within the manufacturer’s recommended range, timely corrective action shall be taken such that the baghouse resumes proper operation. The permittee shall continuously record measurements from the control equipment monitoring devices.
(9 VAC 5-80-110 and Condition 18 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

6. The devices used to measure the sorbent injection rate for the scrubber (Ref. 7103-SB1, 7103-SB2 and 7103-SB5) shall be observed by the permittee with a frequency sufficient to ensure good performance of each scrubber but not less than once per week of operation. The permittee shall continuously record measurements from the control equipment monitoring devices.
(9 VAC 5-80-110 and Condition 19 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

7. The permittee shall obtain a certification from the fuel supplier with each shipment of coal and distillate oil to be burned in the boilers (Ref. 7103-1-01R, 7103-1-2R, 7103-1-03R, 7103-1-04R and 7103-1-05). Each fuel supplier certification shall include the following:

   a. Coal

      i. The name of the fuel supplier;

      ii. The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

      iii. The date on which the coal was shipped;

      iv. The weight of coal delivered in the shipment;

      v. The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

      vi. The methods used to determine the properties of the coal.

   b. Distillate Oil

      i. The name of the fuel supplier;

      ii. The date on which the distillate oil was received;

      iii. The volume of distillate oil delivered in the shipment;

      iv. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil;

      v. The sulfur content of the distillate oil;

      vi. The method used to determine the sulfur content of the distillate oil; and

      vii. The higher heating value of the distillate oil.

   Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition III.A.11. Exceedance of these

specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-110, 9 VAC 5-80-1200, 9 VAC 5-80-1705, 40 CFR 60.48c, and Condition 25 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

8. The permittee shall install, calibrate, maintain, and operate a continuous emissions monitor (CEMS) for measuring sulfur dioxide concentrations, moisture concentrations, and either oxygen or carbon dioxide concentrations at the outlet of each sulfur dioxide control device (Ref. 7103-SB1, 7103-SB2, 7103-SB5) when firing coal and shall record the output of the system. The permittee shall measure sulfur dioxide concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the sulfur dioxide control device.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.46c and Condition 39 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

9. Compliance with the percent reduction requirements and coal-fire sulfur dioxide emission limits for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05) in Conditions III.A.14, III.A.17, III.A.5, and III.A.13 is based on the average percent reduction and the average sulfur dioxide emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and sulfur dioxide emission rate are calculated to show compliance with the standard.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.44c and Condition 40 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

10. The procedures in EPA Method 19 (reference 40 CFR 60, Appendix A) shall be used to determine the hourly sulfur dioxide emission rate (E_H) and the 30-day average sulfur dioxide emission rate (E_A) for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). EPA Method 19 shall be used to calculate E_A when using daily fuel sampling or EPA Method 6B (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.44c and Condition 41 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

11. Compliance with the percent of potential sulfur dioxide emission rate for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05) shall be determined using the following formula:

$$\%P_S = 100(1 - \%R_G/100) * (1 - \%R_F/100)$$

Where:

$\%P_S$ = the potential sulfur dioxide emission rate, in percent
$\%R_G$ = the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent

$\%R_F$ = the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent

(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.44c and Condition 42 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

12. The permittee shall use all valid sulfur dioxide emissions data for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05) in calculating $\%P_S$ and E_H under Conditions III.B.10 and III.B.11, as applicable, whether or not the minimum emissions data requirements are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_S$ or E_H.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.44c, and Condition 43 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

13. The 1-hour average sulfur dioxide emission rates for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05) measured by a CEMS shall be expressed in lbs/MMBTU heat input and shall be used to calculate the average hourly emission rates. Each 1-hour average sulfur dioxide emission rate shall be based on at least 30 minutes of coal-fired operation and include at least two data points representing two 15-minute periods. Hourly sulfur dioxide emission rates are not calculated if the boiler is operated on coal less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.46c, and Condition 44 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

14. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS for Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05), including:

    a. All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (reference 40 CFR 60, Appendix B).

    b. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (reference 40 CFR 60, Appendix F).

    c. The span value of the sulfur dioxide CEMS at the inlet to the control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emission rate of the fuel combusted, and the span value of the sulfur dioxide CEMS at the outlet from the control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emission rate of the fuel combusted.

    (9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.46c and Condition 45 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

15. The permittee shall obtain emissions data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days for

Boilers 1R, 2R, and 5 (Ref. 7103-1-01R, 7103-1-02R, and 7103-1-05). If this minimum data requirement is not met with a single monitoring system, the permittee shall supplement the emissions data with data collected with other monitoring systems as approved by the DEQ.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.46c and Condition 46 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

16. CEMS shall be installed, calibrated, maintained, and operated to measure and record the concentration of nitrogen oxides from boilers 1R, 2R, 3R, 4R and 5 (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05). The NO_X monitors shall be located between each boiler outlet and the Main Heating Plant stack (Stack Ref. 7103-1). Each NO_X monitor shall be collocated with CO_2 or O_2 and, for the coal boilers, moisture monitors. The monitors shall be maintained, located, and calibrated in accordance with approved procedures (40 CFR 60.13).
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.13, 40 CFR 60.48b and Condition 47 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

17. The permittee shall determine compliance with the nitrogen oxides emission standards for Boilers 1R, 2R, 3R, 4R, and 5 (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R, and 7103-1-5) in Conditions III.A.14, III.A.17, III.A.13, III.A.15 and III.A.16 on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.46b, and Condition 48 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

18. When NO_X emissions data are not obtained from the CEMS for Boilers 1R, 2R, 3R, 4R, and 5 (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R, and 7103-1-5) as a result of system breakdowns, repairs, calibration checks, and zero and span adjustments required, emissions data will be obtained by using standby monitoring systems, Method 7, Method 7A (reference 40 CFR 60, Appendix A), or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
(9 VAC 5-80-110, 40 CFR 60.48b and Condition 49 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

19. The span value of each CEMS/COMS for Boilers 1R, 2R, 3R, 4R, and 5 (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R, and 7103-1-5) shall be set at the following:

Monitor	Fuel Type	Span
CEMS (NO_x)	Coal	1000 ppm
	Natural Gas and Oil	500 ppm
	Mixtures	1000 ppm
COMS (Opacity)	-	60%-80%

(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.48b, 40 CFR 60.47c and Condition 50 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

20. A continuous opacity monitor (COMS) shall be installed to measure and record opacity from the Main Heating Plant stack (Stack Ref. 7103-1). The opacity monitor shall monitor and record the opacity of a representative portion of the gases discharged into the atmosphere. The monitor shall be maintained, located, and calibrated in accordance with approved procedures.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.13, 40 CFR 60.43b, 40 CFR 60.48b, 40 CFR 60.43c, 40 CFR 60.47c and Condition 51 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

21. The permittee shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts of the COMS for the Main Heating Plant stack (Stack Ref. 7103-1) at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B of 40 CFR 60. The system shall allow the amount of excess zero and span drift measured at the 24-hour checks to be recorded and quantified, whenever specified. The optical surfaces exposed to effluent gases shall be cleaned prior to performing the zero and span drift adjustments except for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds four percent opacity.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.13(d)(1) and Condition 52 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

22. The permittee shall develop procedures for the Main Heating Plant stack (Stack Ref. 7103-1) COMS, including a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique, to produce a known obstruction of the light beam. Such procedures shall provide a system check of the analyzer's internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.13(d)(2) and Condition 53 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

23. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required, the COMS for the Main Heating Plant stack (Stack Ref. 7103-1), shall be in continuous operation and shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive six-minute period.
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1200, 40 CFR 60.13(e)(1) and Condition 54 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

24. The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

    a. The daily throughput of coal (tons), natural gas (million cubic feet), distillate oil (gallons) and fuel heat input (MMBTU/hr) for each fuel as applicable for each boiler (Ref. 7103-1-01R, 7103-1-03R, 7103-1-04R and 7103-1-05).

    b. The monthly and annual throughput of coal (tons), natural gas (million cubic feet), distillate oil (gallons) and fuel heat input (MMBTU/hr) for each fuel as applicable for each boiler (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05). The annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

    c. Annual particulate matter, PM-10, sulfur dioxide, nitrogen oxides (as NO_2), VOC and carbon monoxide emissions (in tons) for each boiler (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05), calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the DEQ, as provided in Attachment C.

    d. All fuel supplier certifications for the boilers.

    e. A log of weekly scrubber and baghouse inspection results including:

        i The date, time, and name of person performing each inspection;

        ii The sorbent injection rate and the differential pressure across the baghouse; and

iii Any maintenance or repairs performed as a result of these inspections.

f. Records of the required boiler operator training including a statement of time, place and nature of training provided.

g. Manufacturer's recommendations for control device operation.

h. COMS calibrations and calibration checks, percent operating time, and excess emissions.

i. Results of all stack tests and visible emissions evaluations.

j. Daily records for Boilers 1R, 2R, 3R, 4R and 5 (Ref. 7103-1-01R, 7103-1-02R, 7103-1-03R, 7103-1-04R and 7103-1-05) that include the following:

i Calendar date.

ii The monthly and annual capacity factor for each fuel burned in each boiler (Boilers 3R, 4R, and 5) calculated on a 12-month rolling average basis. The annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.

iii The average hourly sulfur dioxide emission rate (Boiler 1R) and nitrogen oxides emission rates (expressed as NO_2) (Boilers 2R, 3R, 4R and 5) in lbs/MMBTU heat input measured or predicted.

iv The sulfur dioxide emission rate (Boilers 1R, 2R and 5) and nitrogen oxides emission rates (expressed as NO_2) (Boilers 1R, 2R, 3R, 4R and 5) in lbs/MMBTU heat input calculated at the end of each steam generating unit operating day from the measured or predicted hourly emission rates for the preceding 30 steam generating unit operating days. This data shall be used to demonstrate compliance with the individual and mixed fuel limitations.

v Identification of the steam generating unit operating days when the calculated 30-day average oxides of nitrogen emission rate or sulfur dioxide emission rate is in excess of the applicable emissions standards, with the reasons for such excess emissions as well as a description of corrective actions taken.

vi Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

vii Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal was not combusted in the steam generating unit.

viii Identification of any times when the pollutant concentration exceeded full span of the continuous emissions monitoring system.

ix Description of any modifications to the continuous emissions monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

x Results of daily sulfur dioxide and nitrogen oxides calibration drift tests and quarterly accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1.

k. The DEQ-approved, pollutant-specific emission factors and the equations used to demonstrate compliance with emission limits, as provided in Attachment C.

l. A log of annual fuel switches including the duration (in minutes) of each fuel switch for Boiler 1R (Ref. 7103-1-01R), Boiler 2R (Ref. 7103-1-02R) and Boiler 5 (Ref. 7103-1-05). The number of annual fuel switches shall be calculated monthly as the sum of each consecutive 12-month period. The details of the log shall be arranged with the DEQ.

m. All opacity data.

n. A log of each coal-fire startup on Boilers 1R, 2R and 5 (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05). The details of the log shall be arranged with the DEQ.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, 9 VAC 5-50-50, 40 CFR 64.9, 40 CFR 60.48c, 40 CFR 60.49b, and Condition 58 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

25. **Compliance Assurance Monitoring (CAM)** – For Boilers 1R, 2R and 5 (Ref. 7103-1-01R, 7103-1-02R and 7103-1-05) the permittee shall conduct monitoring as specified in the respective Compliance Assurance Monitoring (CAM) Plans (Attachment A).
(9 VAC 5-80-110 and 40 CFR 64.6(c))

26. **Compliance Assurance Monitoring (CAM)** – The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.6 (c))

27. **Compliance Assurance Monitoring (CAM)** – At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (b))

28. **Compliance Assurance Monitoring (CAM)** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that Boilers 1R, 2R or 5 (7103-1-01R, 7103-1-02R or 7103-1-05) are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (c))

29. **Compliance Assurance Monitoring (CAM)** – Upon detecting an excursion or exceedance, the permittee shall restore operation of Boilers 1R, 2R or 5 (7103-1-01R, 7103-1-02R or 7103-1-05) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (d)(1))

30. **Compliance Assurance Monitoring (CAM)** – Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (d)(2))

31. **Compliance Assurance Monitoring (CAM)** – If the number of exceedances or excursions associated with CAM plan monitoring exceeds five percent duration of the operating time for Boilers 1R, 2R or 5 (7103-1-01R, 7103-1-02R or 7103-1-05) for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

a. Improved preventative maintenance practices;

b. Process operation changes;

c. Appropriate improvements to control methods;

d. Other steps appropriate to correct control performance; and

e. More frequent or improved monitoring.

(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.8 (a) and (b))

32. **Compliance Assurance Monitoring (CAM)** – The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a QIP, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 E and 40 CFR 64.9 (b))

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided in accordance with the applicable performance specification (reference 40 CFR Part 60, Appendix B).
(9 VAC 5-80-110, 9 VAC 5-50-30 F, 9 VAC 5-80-1705 and Condition 6 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

2. No less frequent than once each five year period, and upon request by the DEQ, the permittee shall perform additional performance tests for the following pollutants using the specified fuels and methods:

Emission Unit	Pollutant	Fuel	Test Method
Boilers 1R, 2R & 5	PM/PM-10[(1)]	Coal	40 CFR 60, Appendix A, Methods 5, 5B or 17 and 19, and 40 CFR 51, Appendix M, Method 202
All Boilers	CO	Natural Gas, Distillate Oil, and Coal	40 CFR 60, Appendix A, Method 10

[(1)] All particulate matter shall be considered PM-10. Condensables shall be tested separately for each boiler.

Tests shall be conducted to determine compliance with the applicable emission limits contained in Conditions III.A.13, III.A.14, III.A.15, III.A.16, and III.A.17. The details of the tests are to be arranged with the DEQ.

(9 VAC 5-80-110, 9 VAC 5-50-30 G and Condition 56 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

3. Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations from the main heating plant stack (Ref. 7103-1) to demonstrate compliance with the visible emission limits contained in the permit. The details of the tests shall be arranged with the DEQ.

   (9 VAC 5-80-110, 9 VAC 5-50-30 G and Condition 57 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

4. Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations on the lime silo (Ref. 7103-LM1) to demonstrate compliance with the visible emission limits contained in the permit. The details of the tests shall be arranged with the DEQ.

   (9 VAC 5-80-110 and 9 VAC 5-50-30 G)

D. Reporting

1. The permittee shall submit reports to the DEQ, within 30 days after the end of each semi-annual period, ending **June 30** and **December 31**, for Boilers 1R, 3R, 4R and 5 (Ref. 7103-1-01R, 7103-1-03R, 7103-1-04R and 7103-1-05). If no shipments of coal or distillate oil were received during the semi-annual period, the semi-annual report shall include a statement that no coal or oil was received during the semi-annual period and the information contained in Part c of this condition. If coal or distillate oil was received during the semi-annual period, the reports shall include:

   a. Calendar dates covered in the reporting period,

   b. A signed statement from the owner or operator of the facility that all of the coal and distillate oil burned or received at the facility met the requirements of Condition III.A.11, that the facility maintains copies of the fuel certifications required in Condition III.B.7, and that the fuel supplier certifications represent all of the coal and distillate oil burned or received at the facility (copies of all fuel supplier certifications for all shipments of coal and distillate oil may be requested at any time by DEQ), and

   c. The information contained in Condition III.B.24.j as it applied to Boilers 1R, 3R, 4R, and 5.

   d. Excess emissions for each CEMS and COMS to include:

      i. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

iv. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Associate Director
Office of Air Enforcement (3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110, 9 VAC 5-50-50, 40 CFR 60.48c, 40 CFR 60.49b and Condition 55 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

2. **Compliance Assurance Monitoring (CAM)** – If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the DEQ and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(9 VAC 5-80-110 E (Article 1) and 40 CFR 64.7 (e))

IV. Coal and Ash Handling System

A. Limitations

1. Particulate matter emissions from each coal silo (7103-CS1, 7103-CS2, 7103-CS3, and 7103-CS4) and bunker (B1, B2 and B5) shall be controlled by cartridge filters. The cartridge filters shall be provided with adequate access for inspection and shall be in operation when the coal handling equipment is operating.
   (9 VAC 5-80-110 and Condition 2 of the 7/23/07 Permit as amended 4/9/09)

2. Particulate matter emissions from the fly ash silo (FAS) and bottom ash silo (BAS) shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection and shall be in operation when the ash handling equipment is operating.
   (9 VAC 5-80-110 and Condition 3 of the 7/23/07 Permit as amended 4/9/09)

3. Particulate matter emissions from the crusher (CR1) and crusher screen (CCS1) shall be controlled by cartridge filters. The cartridge filters shall be provided with adequate access for inspection and shall be in operation when the coal handling equipment is operating.
   (9 VAC 5-80-110 and Condition 4 of the 7/23/07 Permit as amended 4/9/09)

4. Particulate matter emissions from coal unloading of railcars (GS1-8, H1A, H1B, H2A, H2B, H3A, H3B, H4A, and H4B) will be controlled by enclosing the area with a metal building.
   (9 VAC 5-80-110 and Condition 5 of the 7/23/07 Permit as amended 4/9/09)

5. Fugitive dust emission controls for the coal and ash handling equipment operations shall include the following, or equivalent, as a minimum:

   a. Dust from material handling, screens, load-outs and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ).

   b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.

   c. Dust from haul roads and traffic areas shall be controlled by application of asphalt, water, suitable chemicals or equivalent methods approved by the DEQ.

   d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product or raw material spilled or tracked onto paved surfaces, shall be promptly removed to prevent particulate matter from becoming airborne.

   (9 VAC 5-80-110, 9 VAC 5-50-90 and Condition 6 of the 7/23/07 Permit as amended 4/9/09)

6. All coal bunkers (B1, B2 and B5) and the coal conveying equipment (C1-12, E1-4, CCS1 and CR1) shall be completely enclosed.
   (9 VAC 5-80-110 and Condition 7 of the 7/23/07 Permit as amended 4/9/09)

7. The coal unloading by truck shall only occur during emergencies. Emergency truck unloading will only take place when the normal rail unloading is not operational.
   (9 VAC 5-80-110 and Condition 8 of the 7/23/07 Permit as amended 4/9/09)

8. The throughput of coal shall not exceed 50,500 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
   (9 VAC 5-80-110 and Condition 14 of the 7/23/07 Permit as amended 4/9/09)

9. Emissions from the operation of the coal and ash handling equipment shall not exceed the limits specified below:

Particulate Matter (PM)	1.17 lbs/hr	1.79 tons/yr
PM-10	0.68 lbs/hr	1.71 tons/yr

   These emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition IV.A.8.
   (9 VAC 5-80-110 and Condition 16 of the 7/23/07 Permit as amended 4/9/09)

10. Visible emissions from each filter stack and coal handling equipment operations shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
    (9 VAC 5-80-110, 5-50-80 and Condition 17 of the 7/23/07 Permit as amended 4/9/09)

11. Except where this permit is more restrictive than the applicable requirement, the NSPS equipment shall be operated in compliance with the requirements of 40 CFR 60, Subpart Y.
    (9 VAC 5-80-110, 5-50-410 and Condition 15 of the 7/23/07 Permit as amended 4/9/09)

12. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request
(9 VAC 5-80-110, 9 VAC 5-50-20 E and Condition 23 of the 7/23/07 Permit as amended 4/9/09)

B. Monitoring and Recordkeeping

1. Each of the cartridge and fabric filters shall be equipped with a device to continuously measure the differential pressure across the filters. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when each filter is operating.
   (9 VAC 5-80-110 and Condition 9 of the 7/23/07 Permit as amended 4/9/09)

2. To ensure good performance, the devices used to continuously measure the differential pressure across each cartridge and/or fabric filter shall be observed by the permittee not less than once per week of operation. The permittee shall continuously record measurements from the control equipment monitoring devices. If during the inspection, the differential pressure is not within the manufacturer’s recommended range, timely corrective action shall be taken such that the cartridge or fabric filter resumes proper operation.
   (9 VAC 5-80-110 and Condition 10 of the 7/23/07 Permit as amended 4/9/09)

3. The permittee shall conduct a weekly visible emissions inspection of each cartridge and fabric filter exhaust. All visible emissions inspections shall be performed when the equipment is operating. Each observation period shall be a minimum of one minute. If during the inspection visible emissions are observed, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken within two hours of the

visible emission inspection such that the equipment operates with no visible emissions within 24 hours of the initial observation. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed the applicable opacity standard for the emissions unit, the VEE shall be conducted for a total of 60 minutes or until an exceedance of the opacity standard for that emission unit has been documented, whichever period is shorter.

(9 VAC 5-80-110, 9 VAC 5-50-50 H and Condition 11 of the 7/23/07 Permit as amended 4/9/09)

4. The permittee shall perform the following inspection and maintenance activities for coal handling equipment operations:

   a. The permittee shall inspect and maintain weekly the fugitive dust emissions control system used to control fugitive emissions from coal handling activities

   b. The permittee shall perform a weekly visual survey of the coal handling activities for any sources of excessive fugitive emissions. For the purpose of this survey, excessive emissions are considered to be any visible emissions that leave the plant site boundaries. The person conducting this survey does not have to be Method 9 certified. However, the individual should be familiar with the procedures of Method 9 including using the proper location to observe visible emissions. If sources of excess fugitive emissions are identified during the survey, corrective action shall be initiated to minimize the fugitive emissions as soon as practical.

   (9 VAC 5-80-110, 9 VAC 5-50-50 H and Condition 12 of the 7/23/07 Permit as amended 4/9/09)

5. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

   a. Monthly and annual throughput of coal, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   b. A log of weekly cartridge and fabric filter inspections results including:

      i The date, time, and name of person performing each inspection;

      ii The differential pressure across each cartridge and/or fabric filter; and

      iii Any maintenance or repairs performed as a result of these inspections including the date, time and person performing the repairs.

   c. A log of weekly visible emissions inspections for the cartridge and/or fabric filter exhausts and coal handling operations, including:

i The date, time, and name of person performing each inspection;

ii Whether or not there were visible emissions; and

iii Any maintenance or repairs performed as a result of these inspections including the date, time and person performing the repairs.

d. Records of the required training and certification for operators of the air pollution control equipment. Certification of training shall consist of a statement of time, place, and nature of training provided.

e. Results of all visible emissions evaluations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 19 of the 7/23/07 Permit as amended 4/9/09)

C. Testing

1. The coal and ash handling equipment shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested and safe sampling platforms and access shall be provided.
(9 VAC 5-80-110, 9 VAC 5-50-30 F and Condition 13 of the 7/23/07 Permit as amended 4/9/09)

2. Upon request by the DEQ, the permittee shall conduct additional visible emissions evaluations (VEE) to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the DEQ.
(9 VAC 5-80-110, 9 VAC 5-50-30 G and Condition 18 of the 7/23/07 Permit as amended 4/9/09)

D. Reporting

The permittee shall furnish notification to the DEQ of the intention to unload coal by truck at least 24 hours prior to the unloading event.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 20 of the 7/23/07 Permit as amended 4/9/09)

V. Other Fuel Burning Equipment

A. Limitations

1. The approved fuels for the boilers are as follows:

Emission Unit I.D.	Emission Unit Description	Approved Fuel Type
0580-2-01	Cleaver Brooks (Carruthers Hall)	Natural Gas and Distillate Oil
0603-1-01	Weil-McLain (Faulkner House)	Natural Gas and Distillate Oil
1600-1-01	NRC (KCRC)	Distillate Oil
1760-2-01	Cleaver Brooks (Sheridan G Snyder Building)	Natural Gas
1760-2-02	Cleaver Brooks (Sheridan G Snyder Building)	Natural Gas
5575-1-01	Unilux (Massie Road Heat Plant – JPJ Parking Garage)	Natural Gas and Distillate Oil
5575-1-02	Unilux (Massie Road Heat Plant)	Natural Gas and Distillate Oil
5575-1-03	Unilux (Massie Road Heat Plant)	Natural Gas and Distillate Oil
5575-1-04	Unilux (Massie Road Heat Plant)	Natural Gas and Distillate Oil
5576-1-01	Cleaver Brooks (University Hall)	Natural Gas and Distillate Oil
5576-1-02	Cleaver Brooks (University Hall)	Natural Gas and Distillate Oil
5577-1-01	Kewanee (Frank C. McCue Center)	Natural Gas and Distillate Oil
7533-1-01	FLO-KNTRL (North Grounds Heat Plant)	Natural Gas and Distillate Oil
7533-1-02	FLO-KNTRL (North Grounds Heat Plant)	Natural Gas and Distillate Oil

A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110, Condition 10 of 3/29/90 Permit as Amended 11/14/90, and Condition 3 of the 10/13/04 Permit as amended 3/22/10)

2. Total annual fuel throughput to the four Unilux Bent Water Tube Boilers (5575-1-01, through 5575-1-04) shall not exceed 450,000 gallons per year of distillate oil and 300 x 10^6 SCF of natural gas. The annual throughput of each fuel shall be calculated monthly as the sum of each consecutive 12-month period.
   (9 VAC 5-80-110 and Condition 6 of 10/13/04 Permit as amended 3/22/10)

3. The 10.73 MMBtu/hr boiler (Ref. 5577-1-01) shall consume no more than 10,460 standard cubic feet per hour and no more than 30 MM (million) standard cubic feet per year of natural gas. The annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
   (9 VAC 5-80-110 and Condition 4 of 3/29/90 Permit as amended 11/14/90)

4. The 10.73 MMBtu/hr boiler (Ref. 5577-1-01) shall consume no more than 74.5 gallons per hour and 21,600 gallons per year of distillate oil. The annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
   (9 VAC 5-80-110 and Condition 5 of 3/29/90 Permit as amended 11/14/90)

5. The distillate oil shall meet the specifications below:

   DISTILLATE OIL for the four Unilux Bent Water Tube boilers (Ref. 5575-1-01 through 5575-1-04), which meets ASTM specifications for numbers 1 or 2 fuel oil:
   Maximum sulfur content per shipment: 0.2%

   DISTILLATE OIL for the 10.73 MMBtu/hr boiler (Ref. 5577-1-01), which meets the ASTM specifications for numbers 1 or 2 fuel oil:
   Maximum sulfur content per shipment: 0.5%
   Annual weighted average sulfur content: 0.2%

   DISTILLATE OIL for the remaining fuel burning equipment listed in Condition V.A.1, which meets the ASTM specifications for numbers 1 or 2 fuel oil:
   Maximum sulfur content per shipment: 0.5%

   (9 VAC 5-80-110, Condition 7 of the 10/13/04 Permit as amended 3/22/10, Condition 11 of 3/29/90 Permit as Amended 11/14/90)

6. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization with the manufacturer's operating instructions, at minimum.
   (9 VAC 5-80-110 and Condition 9 of the 10/13/04 Permit as amended 3/22/10)

7. Hourly emissions from each of the four Unilux Bent Water Tube Boilers (Ref. 5575-1-01 through 5575-1-04) shall not exceed the limits specified below:

Particulate Matter	0.28 lbs/hr
PM-10	0.20 lbs/hr

Sulfur Dioxide	2.43 lbs/hr
Nitrogen Oxides	1.05 lbs/hr
Carbon Monoxide	1.01 lbs/hr
Volatile Organic Compounds	0.07 lbs/hr

(9 VAC 5-80-110 and Condition 11 of the 10/13/04 Permit as amended 3/22/10)

8. Total annual emissions from the four Unilux Bent Water Tube Boilers (Ref. 5575-1-01 through 5575-1-04) shall not exceed the limits specified below:

Particulate Matter	1.88 tons/yr
PM-10	1.68 tons/yr
Sulfur Dioxide	6.48 tons/yr
Nitrogen Oxides	8.62 tons/yr
Carbon Monoxide	13.73 tons/yr
Volatile Organic Compounds	0.91 tons/yr

(9 VAC 5-80-110 and Condition 12 of the 10/13/04 Permit as amended 3/22/10)

9. Emissions from the operation of the 10.73 MMBtu/hr boiler (Ref. 5577-1-01) when firing natural gas shall not exceed the limits specified below:

Nitrogen Oxides	1.5 lbs/hr	2.1 tons/yr
Carbon Monoxide	0.4 lbs/hr	0.5 tons/yr

(9 VAC 5-80-110 and Condition 6 of 3/29/90 Permit as Amended 11/14/90)

10. Emissions from the operation of the 10.73 MMBtu/hr boiler (Ref. 5577-1-01) when firing distillate oil shall not exceed the limits specified below:

Sulfur Dioxide	2.1 lbs/hr	0.5 tons/yr
Nitrogen Oxides	1.5 lbs/hr	0.3 tons/yr

Carbon Monoxide	0.4 lbs/hr	0.1 tons/yr

(9 VAC 5-80-110 and Condition 7 of 3/29/90 Permit as amended 11/14/90)

11. Emissions from the following fuel burning equipment shall not exceed the limits specified below:

Emission Unit	PM	SO_2
Cleaver Brooks Model # CB 200-40 (Ref. 0580-2-01)	1.02 lbs/hr	4.49 lbs/hr
Weil-McLain Model # 788 (Ref. 0603-1-01)	0.96 lbs/hr	4.22 lbs/hr
NRC Model #9-47 (Ref. 1600-1-01)	0.66 lbs/hr	2.90 lbs/hr
Cleaver Brooks Model #CB 428-3 (Ref. 5576-1-01)	7.12 lbs/hr	33.26 lbs/hr
Cleaver Brooks Model #CB 428-3 (Ref. 5576-1-02)	7.12 lbs/hr	33.26 lbs/hr
FLO-KNTRL #1 (Ref. 7533-1-01)	8.10 lbs/hr	39.60 lbs/hr
FLO-KNTRL #2 (Ref. 7533-1-02)	8.10 lbs/hr	39.60 lbs/hr

(9 VAC 5-80-110, 9 VAC 5-40-900, 9 VAC 5-40-910 and 9 VAC 5-40-930)

12. Visible emissions from the boiler stack (Stack Ref. 5575-1) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

    (9 VAC 5-80-110 and Condition 14 of the 10/13/04 Permit as amended 3/22/10)

13. Visible emissions from the 10.73 MMBtu/hr boiler (Ref. 5577-1-01) shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

    (9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 8 of 3/29/90 Permit as Amended 11/14/90)

14. Visible emissions from the following emission units shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A):

    Weil-McLain Model # 788 (Ref. 0603-1-01)
    NRC Model #9-47 (Ref. 1600-1-01)
    Cleaver Brooks Model CB/LE (Ref. 1760-2-01)
    Cleaver Brooks Model CB/LE (Ref. 1760-2-02)

FLO-KNTRL #1 (Ref. 7533-1-01)
FLO-KNTRL #2 (Ref. 7533-1-02)

This condition applies at all times except during startup, shutdown, and malfunction. (9 VAC 5-80-110 and 9 VAC 5-50-80)

15. Visible emissions from the following emission units shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A):

    Cleaver Brooks Model # CB 200-40 (Ref. 0580-2-01)
    Cleaver Brooks Model #CB 428-3 (Ref. 5576-1-01)
    Cleaver Brooks Model #CB 428-3 (Ref. 5576-1-02)

    (9 VAC 5-80-110 and 9 VAC 5-40-940)

16. Except where this permit is more restrictive than the applicable requirement, the NSPS equipment (Ref. 5575-1-01 through 5575-1-04, 5577-1-01, 1760-2-01 and 1760-2-02), shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.

    (9 VAC 5-80-110, 9 VAC 5-50-400, 9 VAC 5-50-410 and Condition 15 of the 10/13/04 Permit as amended 3/22/10)

17. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110, 9 VAC 5-50-20 E and Condition 24 of the 10/13/04 Permit as amended 3/22/10)

B. Monitoring and Recordkeeping

1. The permittee shall conduct visible emission inspections on each boiler stack listed in Conditions V.A.14 through V.A.15 in accordance with the following procedures and frequencies:

   a. At a minimum of once per month, the permittee shall determine the presence of visible emissions. If during the inspection, visible emissions are observed, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes.

   b. All visible emissions inspections for each boiler shall be performed when the boiler is operating.

   c. If visible emissions inspections conducted during 12 consecutive months show no visible emissions for a particular boiler stack, the permittee may reduce the monitoring frequency to once per quarter for that boiler stack. Anytime the quarterly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per month for that stack.

   All observations and VEE results shall be recorded.
   (9 VAC 5-80-110)

2. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided for the boilers. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
   (9 VAC 5-80-110 and Condition 9 of the 10/13/04 Permit as amended 3/22/10)

3. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil to be burned in each boiler. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the distillate oil was received;

   c. The volume of distillate oil delivered in the shipment;

   d. A statement that the distillate oil complies with the ASTM specifications for numbers 1 or 2 fuel oil for boilers listed in Condition V.A.3;

   e. The sulfur content of the distillate oil;

f. The method used to determine the sulfur content of the distillate oil;

(9 VAC 5-80-110, 40 CFR 60 Subpart Dc, Conditions 11 and 12 of 3/29/90 Permit as amended 11/14/90, and Condition 8 of the 10/13/04 Permit as amended 3/22/10)

4. The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

   a. Daily, monthly, and annual throughputs of natural gas (in cubic feet) and distillate oil (in gallons) or alternate records as approved in writing by the DEQ to each of the four Unilux Bent Water Tube boilers (Ref. 5575-1-01 through 5575-1-04). Annual throughputs for each fuel shall be calculated monthly as the sum of each consecutive 12-month period.

   b. The daily, monthly and annual throughput of distillate oil (gallons) and natural gas (million cubic feet) for the 10.73 MMBtu/hr boiler (Ref. 5577-1-01). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

   c. Monthly and annual throughput of natural gas (million cubic feet) for the boilers (Ref. 1760-1-01 and 1760-1-02). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

   d. Annual throughput of natural gas (in cubic feet) and distillate oil (in gallons) to all of the four Unilux Bent Water Tube boilers (Ref. 5575-1-01 through 5575-1-04), calculated monthly as the sum of each consecutive 12-month period.

   e. Annual emissions calculations (in tons) as necessary to demonstrate compliance with the limitations established in Condition V.A.8. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using calculation methods approved by the DEQ, as provided in Attachment C.

   f. All fuel supplier certifications as required by Condition V.B.3.

   g. Written operating procedures and maintenance and training records required by Condition V.B.2.

   h. Results of all visible emission evaluations as required by Condition V.C.2.

   i. Results of all visible emission inspections and evaluations as required by Condition V.B.1.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
   (9 VAC 5-80-110, 40 CFR 60 Subpart Dc, Condition 18 of the 10/13/04 Permit as amended 3/22/10, and Conditions 11 and 12 of 3/29/90 Permit as amended 11/14/90)

C. Testing

1. Upon request from the DEQ, test ports shall be provided at the appropriate locations. (9 VAC 5-80-110, 9 VAC 5-50-30 and Condition 9 of 3/29/90 Permit as amended 11/14/90)

2. Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations on the boiler stack (Stack Ref. 5575-1) to demonstrate compliance with the visible emission limit contained in this permit. The details of the tests shall be arranged with the DEQ.

   (9 VAC 5-80-110, 9 VAC 5-50-30 G and Condition 17 of the 10/13/04 Permit as amended 3/22/10)

D. Reporting

1. The permittee shall submit fuel quality reports to the DEQ, within 30 days after the end of each semi-annual period, ending **June 30** and **December 31** for boilers 5575-1-01, 5575-1-02, 5575-1-03, 5575-1-04, and 5577-1-01. If no shipments of distillate oil were received during the semi-annual period, the semi-annual report shall consist of the dates included in the semi-annual period and a statement that no oil was received during the semi-annual period. If distillate oil was received during the semi-annual period, the reports shall include:

   a. Dates included in the semi-annual period;

   b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the semi-annual period or a semi-annual summary from each fuel supplier that includes the information specified in Condition V.B.3 for each shipment of distillate oil, and

   c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility.

   One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

   Associate Director
   Office of Air Enforcement (3AP20)
   U.S. Environmental Protection Agency
   Region III
   1650 Arch Street
   Philadelphia, PA 19103-2029

   (9 VAC 5-80-110, 9 VAC 5-50-50, 9 VAC 5-50-410 and Condition 19 of the 10/13/04 Permit as amended 3/22/10)

VI. Electrical Generators and Fire Pumps

As used in Section VI, the classifications "NSPS Group, MACT Group 1a, MACT Group 1b, MACT Group 2, MACT Group 3, and MACT Group 4" refer the generator groupings provided in Attachment B of the permit.

A. Limitations

1. The approved fuel for the emergency generators (Ref. NSPS Group, MACT Group 1a, MACT Group 2, MACT Group 3, MACT Group 4, 5575-2-01, 7103-2-01, and 7103-3-01) is diesel fuel. A change in the fuel used may require a permit to modify and operate.

   (9 VAC 5-80-110, 40 CFR 63.6590(c) 40 CFR 60.4207, Condition 5 of the 1/12/11 Permit, Condition 4 of the 6/9/10 Permit, Condition 20 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10, Condition 4 of the 10/13/04 Permit as amended 3/22/10, Condition 4 of the 12/20/07 Permit, as amended 3/22/10, and Condition 4 of the 6/29/05 Permit as amended 3/22/10)

2. The approved fuel for the emergency generators (Ref. 0396-1-01 and 7369-1-01) is propane. The approved fuel for the emergency generators (Ref. 0555-1-01 and 0627-1-01) is natural gas. A change in fuel may require a permit to modify and operate.

   (9 VAC 5-80-110)

3. The emergency generators (Ref. NSPS Group and MACT Group 4) must use diesel fuel that meets the following requirements:

   Maximum Sulfur content: 15 parts per million (0.0015%)

   (9 VAC 5-80-110, 40 CFR 60.4207(b), 40 CFR 80.510(b), Condition 5 of the 12/20/07 Permit, as amended 3/22/10, Condition 6 of the 1/12/11 Permit, and Condition 5 of the 6/9/10 Permit)

4. The diesel fuel shall meet the specifications below:

   DIESEL FUEL for the 2000 kW compression ignition (CI) -engine generator (Ref. 5575-2-01), which meets ASTM specifications for numbers 1 or 2 fuel oil:
   Maximum sulfur content per shipment: 0.2%

   DIESEL FUEL for the CI-engine generator (Ref. 7103-2-01), which meets ASTM specifications for numbers 1 or 2 fuel oil:
   Maximum sulfur content per shipment: 0.5%

DIESEL FUEL for the emergency generator (Ref. No. 7103-3-01), which meets the ASTM specifications, or a DEQ-approved equivalent method, for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.05%

(9 VAC 5-80-110, Condition 7 of the 10/13/04 Permit as amended 3/22/10, Condition 7 of the 6/29/05 Permit as amended 3/22/10, and Condition 24 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

5. The emergency generator (Ref. 1161-1-01) shall consume no more than 68,250 gallons of diesel fuel, per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 6 of the 12/20/07 Permit as amended 3/22/10)

6. The CI engine generator (Ref. 7103-2-01) shall consume no more than 53,261 gallons of diesel fuel per year, calculated monthly as the sum of each consecutive 12-month period.

   (9 VAC 5-80-110 and Condition 6 of the 6/29/05 Permit as amended 3/22/10)

7. The emergency generator (Ref. 0599-1-01) shall consume no more than 86,650 gallons of diesel fuel, per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 6 of the 6/9/10 Permit)

8. The emergency generators (Ref. 1149-2-01 and 1149-3-01) shall each consume no more than 86,650 gallons of diesel fuel per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 7 of the 1/12/11 Permit)

9. The emergency generator (Ref. 1149-4-01) shall consume no more than 52,400 gallons of diesel fuel per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 8 of the 1/12/11 Permit)

10. The permittee must maintain and operate the emergency generators (Ref. NSPS Group) according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the manufacturer, over the entire life of the engine. In addition, the permittee may only change those settings that are approved by the manufacturer.

    (9 VAC 5-80-110, 40 CFR 63.6590 (c), 40 CFR 60.4206, 40 CFR 60.4211, Condition 3 of the 1/12/11 Permit, Condition 3 of the 6/9/10 Permit, and Condition 3 of the 12/20/07 Permit as amended 3/22/10)

11. Generator emissions (Ref. 5575-2-01, 7103-2-01 and 7103-3-01) shall be controlled by proper operation and maintenance. Generator operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.

    (9 VAC 5-80-110, Condition 9 of the 10/13/04 Permit as amended 3/22/10, Condition 9 of the 6/29/05 Permit as amended 3/22/10, and Condition 26 of the of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

12. Emissions from the operation of the 2000 kW generator (Ref. 5575-2-01) shall not exceed the limits specified below:

Particulate Matter	2.36 lbs/hr	0.59 tons/yr
PM-10	2.36 lbs/hr	0.59 tons/yr
Sulfur Dioxide	4.34 lbs/hr	1.08 tons/yr
Nitrogen Oxides	40.77 lbs/hr	10.19 tons/yr
Carbon Monoxide	50.22 lbs/hr	12.56 tons/yr
Volatile Organic Compounds	5.91 lbs/hr	1.48 tons/yr

    (9 VAC 5-80-110 and Condition 13 of the 10/13/04 Permit as amended 3/22/10)

13. Emissions from the operation of the CI engine generator (Ref. 7103-2-01) shall not exceed the limits specified below:

Sulfur Dioxide	7.01 lbs/hr	1.75 tons/yr
Nitrogen Oxides (as NO_2)	44.42 lbs/hr	11.10 tons/yr
Carbon Monoxide	11.80 lbs/hr	2.95 tons/yr

    (9 VAC 5-80-110 and Condition 11 of the 6/29/05 Permit as amended 3/22/10)

14. Emissions from the 2,000 kW CI Engine Generator (Ref. 7103-3-01) shall not exceed any of the limits specified below:

Particulate Matter	2.38 lbs/hr	0.60 tons/yr
PM-10	2.38 lbs/hr	0.60 tons/yr
Oxides of Nitrogen (as NO_2)	40.56 lbs/hr	10.14 tons/yr
Carbon Monoxide	50.26 lbs/hr	12.57 tons/yr
Volatile Organic Compounds	5.73 lbs/hr	1.43 tons/yr

(9 VAC 5-80-110 and Condition 27 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

15. Emissions from the operation of the emergency generator (Ref. 1161-1-01) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	40.6 lbs/hr	10.1 tons/yr
Carbon Monoxide	50.3 lbs/hr	12.6 tons/yr
Particulate Matter	2.4 lbs/hr	0.6 tons/yr
PM-10	2.4 lbs/hr	0.6 tons/yr
Volatile Organic Compounds	5.7 lbs/hr	1.4 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions VI.A. 1, VI.A.3, VI.A.5, VI.A.0, and Condition VI.B.4.
(9 VAC 5-80-110 and Condition 11 of the 12/20/07 Permit as amended 3/22/10)

16. Emissions from the operation of the emergency generator (Ref. 0599-1-01) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	35.3 lbs/hr	8.8 tons/yr
Carbon Monoxide	19.3 lbs/hr	4.8 tons/yr
Volatile Organic Compounds	7.2 lbs/hr	1.8 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions VI.A.1, VI.A.3, VI.A.7 and VI.A.0. (9 VAC 5-80-110 and Condition 11 of the 6/9/10 Permit)

17. Emissions from the operation of each of the emergency generators (Ref. Nos. 1149-2-01 and 1149-3-01) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	40.1 lbs/hr	10.0 tons/yr
Carbon Monoxide	3.3 lbs/hr	0.8 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions VI.A.1, VI.A.3, and VI.A.8. (9 VAC 5-80-110 and Condition 13 of the 1/12/11 Permit)

18. Emissions from the operation of the emergency generator (Ref. 1149-4-01) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	22.0 lbs/hr	5.5 tons/yr
Carbon Monoxide	2.0 lbs/hr	0.5 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions VI.A.1, VI.A.3, and VI.A.9. (9 VAC 5-80-110 and Condition 14 of the 1/12/11 Permit)

19. Visible emissions from the 2000 kW CI-engine generator stack (Stack Ref. 5575-2) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

    (9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 14 of the 10/13/04 Permit as amended 3/22/10)

20. Visible emissions from the emergency generators (Ref. 0599-1-01, 1149-2-01, 1149-3-01, 1149-4-01 and 1161-1-01) shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80, Condition 17 of the 1/12/11 Permit, Condition 13 of the 6/9/10 Permit, and Condition 13 of the 12/20/07 Permit as amended 3/22/10)

21. Visible emissions from the emergency generators (0068-1-01, 0267-1-01, 1148-1-01, 1148-2-01, 1148-3-01, 1148-4-01, 1149-1-01, 1155-1-01, 1194-1-01, 1196-1-01, 1998-1-01, 3761-1-01, 7103-2-01, 7103-3-01, 7185-1-01) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-80, Condition 12 of the 6/29/05 Permit as amended 3/22/10, and Condition 35 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

22. Except where this permit is more restrictive, the emergency generators (Ref. NSPS Group, MACT Group 4) shall be operated in compliance with the requirements of 40 CFR 60, Subpart IIII.

    (9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110, 40 CFR 60 Subpart IIII, Condition 12 of the 1/12/11 Permit, Condition 10 of the 6/9/10 Permit and Condition 10 of the 12/20/07 Permit as amended 3/22/10)

23. Except where this permit is more restrictive, the emergency generators (MACT Group 2, MACT Group 3, MACT Group 4) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ.

    (9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110, 40 CFR 63 Subpart ZZZZ, Condition 12 of the 1/12/11 Permit, Condition 10 of the 6/9/10 Permit, and Condition 10 of the 12/20/07 Permit as amended 3/22/10)

24. Emissions from the operation of the emergency generator (Ref. 0256-2-01) shall not exceed the limits specified below:

	NSPS Standard
Nitrogen Oxides	9.2 g/KW-hr

    Compliance with these emission limits may be determined by keeping records of engine manufacture data indicating compliance with these emission limits.
    (9 VAC 5-80-110, 40 CFR 60.4205(a) and 40 CFR 60.4211(b))

25. Emissions from the operation of the emergency generators (Ref. 0267-1-01, 1149-1-01, 1149-2-01, 1149-3-01 and 1161-1-01) shall not exceed the limits specified below:

	NSPS Standard
Particulate Matter	0.54 g/KW-hr
Nitrogen Oxides	9.2 g/KW-hr
Carbon Monoxide	11.4 g/KW-hr
Hydrocarbons (HC)	1.3 g/KW-hr

Compliance with these emission limits may be determined by keeping records of engine manufacture data indicating compliance with these emission limits.
(9 VAC 5-80-110, 40 CFR 60.4205 (a), 40 CFR 60.4211(b), Condition 12 of the 12/20/07 Permit as amended 3/22/10 and Condition 15 of the 1/12/11 Permit)

26. Emissions from the operation of the specified emergency generators shall not exceed the limits specified below:

Ref. Nos.	New Source Performance Standards		
	$NMHC + NO_x$	CO	PM
0131-1-01 0214-1-01 0256-3-01 0264-1-01 1146-1-01 1149-5-01 2368-1-01 2371-1-01 7147-1-01	4.0 g/kW-hr	3.5 g/kW-hr	0.2 g/kW-hr
0446-1-01 1600-2-01	4.0 g/kW-hr	5.0 g/kW-hr	0.3 g/kW-hr
0215-1-01 0599-1-01 1142-1-01 1148-5-01 1149-4-01 1172-1-01 1760-1-01 1985-1-01	6.4 g/kW-hr	3.5 g/kW-hr	0.2 g/kW-hr
3656-1-01	7.5 g/kW-hr	5.0 g/kW-hr	0.4 g/kW-hr
0594-1-01	4.0 g/kW-hr	--	0.3 g/kW-hr

Compliance with these emission limits may be determined by keeping records of engine manufacture data indicating compliance with these emission limits.
(9 VAC 5-80-110, 40 CFR 60.4205(b), 40 CFR 60.4205(c) and 40 CFR 60.4211(c), Condition 16 of the 1/12/11 Permit, and Condition 12 of the 6/9/10 Permit)

27. The CI-engine generators (Ref. 5575-2-01, 7103-2-01 and 7103-3-01) are to be used only for providing power at the location during interruption of service from the normal power supplier, periodic maintenance testing, and operational training. Each emergency generator use may not exceed 500 hours per year.

    (9 VAC 5-80-110, Condition 5 of the 10/13/04 Permit as amended 3/22/10, Condition 5 of the 6/29/05 Permit as amended 3/22/10, and Condition 21 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

28. Operation of the emergency generators under an Independent System Operator's (ISO) Emergency Load Response Program (ELRP) is authorized as an emergency use for any ISO Declared Emergency. Other than an ISO ELRP, the emergency generators shall not be operated voluntarily for the purpose of peak-shaving, demand response, or as part of any other interruptible power without first receiving permission from the DEQ.

    (9 VAC 5-80-110, Condition 11 of the 1/12/11 Permit, Condition 9 of the 6/9/10 Permit, Condition 10 of the 10/13/04 Permit as amended 3/22/10, Condition 22 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10, Condition 9 of the 12/20/07 Permit as amended 3/22/10, and Condition 10 of the 6/29/05 Permit as amended 3/22/10)

29. The operation of the emergency generators (Ref. NSPS Group and MACT Group 4) is limited to emergency situations. Emergency generators (Ref. NSPS Group and MACT Group 4) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing is limited to 100 hours per year. For engines meeting standards under Conditions IV.A.24, VI.A.25 or VI.A.26, any operation other than emergency operation, and maintenance and testing as permitted in 40 CFR 60 Subpart IIII, is prohibited. There is no time limit on the use of emergency stationary ICE in emergency situations.

    (9 VAC 5-80-110, 40 CFR 63.6590 (c), 40 CFR 60.4211(e), 40 CFR 60.4219, Condition 10 of the 1/12/11 Permit, Condition 8 of the 6/9/10 Permit, and Condition 8 of the 12/20/07 Permit as amended 3/22/10)

30. The emergency stationary RICE (Ref. MACT Group 2) must be operated in accordance with the following:

    a. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this condition, is prohibited.

    b. There is no time limit on the use of the emergency stationary RICE in emergency situations.

    c. You may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance

company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

d. You may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition, as long as the power provided by the financial arrangement is limited to emergency power.

(9 VAC 5-80-110 and 40 CFR 63.6640(f))

31. By May 3, 2013, the CI engines (Ref. MACT Group 2) shall comply with the maintenance requirements specified in sections 1 (a) through (c) of Table 2c to Subpart ZZZZ:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);

b. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

(9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63, Subpart ZZZZ)

32. By October 19, 2013, the spark ignition (SI) engines (Ref. MACT Group 5) shall comply with the maintenance requirements specified in sections 6 (a) through (c) of Table 2c to Subpart ZZZZ:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);

    b. Inspect spark plugs every 1000 hours of operation or annually, whichever comes first; and

    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

    (9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63, Subpart ZZZZ)

33. By May 3, 2013 for CI engines, and October 19, 2013 for SI engines, during periods of startup the permittee must minimize the time spend at idle for the emergency engines (Ref. MACT Group 2 and MACT Group 5) and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
    (9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

34. The emergency generators (Ref. MACT Group 4) must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII.
    (9 VAC 5-80-110 and 40 CFR 63.6590(c))

35. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the emergency generators (Ref. 0599-1-01, 1149-2-01, 1149-3-01, 1149-4-01, 1161-1-01, 5575-1-01 and 7103-3-01), including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the operation of the emergency generator:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of

such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110, Condition 22 of the 12/20/07 Permit as amended on 3/22/10, Condition 23 of the 6/9/10 Permit, Condition 24 of the 10/13/04 Permit, as amended 3/22/10, Condition 26 of the 1/12/11 Permit, and Condition 62 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

B. Monitoring and Recordkeeping

1. The permittee must install a non-resettable hour meter prior to the startup of the emergency generators (Ref. NSPS Group). The hour meter shall be provided with adequate access for inspection.

   (9 VAC 5-80-110, 40 CFR 63.6590 (c), 40 CFR 60.4209, Condition 2 of the 1/12/11 Permit, Condition 2 of the 6/9/10 Permit, and Condition 2 of the 12/20/07 Permit as amended 3/22/10)

2. By May 3, 2013 for CI engines and October 19, 2013 for SI engines, the facility shall install non-resettable hour meters on the emergency stationary RICE (Ref. MACT Group 2 and MACT Group 5). The hour meter shall be provided with adequate access for inspection

   (9 VAC 5-80-110 and 40 CFR 63.6625 (f))

3. By May 3, 2013 for CI engines and October 19, 2013 for SI engines, the permittee shall develop a maintenance plan for the emergency generators (Ref. MACT Group 2 and MACT Group 5) that provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions.

   (9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63.6625 (e))

4. The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel for the emergency generators (Ref. NSPS Group, 5575-2-01, 7103-2-01, and 7103-3-01). Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the diesel fuel was received;

   c. The volume of diesel fuel delivered in the shipment;

   d. A statement that the diesel fuel complies with the ASTM specifications for numbers 1 or 2 fuel oil or ASTM specifications for D396, as applicable;

   e. The sulfur content of the diesel fuel; and

f. The method used to determine the sulfur content of the diesel fuel for the emergency generator (Ref. 7103-3-01).

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Conditions VI.A.3 and VI.A.4. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-110, Condition 9 of the 1/12/11 Permit, Condition 7 of the 6/9/10 Permit, Condition 8 of the 10/13/04 Permit as amended 3/22/10, Condition 8 of the 6/29/05 Permit as amended 3/22/10, Condition 7 of the 12/20/07 Permit as amended 3/22/10, and Condition 25 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

5. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the generators (Ref. 5575-2-01, 7103-2-01 and 7103-3-01). These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

   (9 VAC 5-80-110, Condition 9 of the 10/13/04 Permit as amended 3/22/10, Condition 9 of the 6/29/05 Permit as amended 3/22/10, and Condition 26 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

6. The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

   a. Annual particulate matter, PM-10, sulfur dioxide, nitrogen oxides (as NO_2), carbon monoxide and volatile organic compound emission calculations (in tons per year) for the 2000 kW CI-engine generator (5575-2-01). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the DEQ, as provided in Attachment C.

   b. All fuel supplier certifications.

   c. Written operating procedures and maintenance and training records as required by Condition VI.B.5.

   d. Results of all stack tests and visible emission evaluations.

   e. Monthly and annual throughput of diesel fuel, in gallons, for the generator (Ref. 7103-2-01). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

f. Annual throughput of diesel fuel, in gallons, for the emergency generators (Ref. 0599-1-01, 1149-2-01, 1149-3-01, 1149-4-01 and 1161-1-01). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

g. Annual hours of operation for the generators (Ref. 5575-2-01, 7103-2-01 and 7103-3-01) calculated monthly as the sum of each consecutive 12-month period.

h. Annual hours of operation for the generators (Ref. 0599-1-01, 1161-1-01, 1149-2-01, 1149-3-01, 1149-4-01) for emergency purposes, maintenance checks and readiness testing calculated monthly as the sum of each consecutive 12-month period.

i. Annual hours of emergency operation, maintenance and testing, and operation in non-emergency situations for the generators (Ref. MACT Group 2).

j. Annual hours of operation of the emergency generators (Ref. MACT Group 1a, MACT Group 3, MACT Group 4, MACT Group 5 and NSPS Group) for emergency purposes, maintenance checks and readiness testing.

k. Total hours of operation for each emergency generator under the ELRP for each calendar year.

l. Documentation to demonstrate that an ISO Declared Emergency exists each time an emergency generator participates in the ELRP.

m. Scheduled and unscheduled maintenance, and operator training.

n. Records of engine manufacture data as required in Conditions VI.A.24, VI.A.25 and VI.A.26.

o. Records of the maintenance conducted on the CI engines (Ref. MACT Group 2) after May 3, 2013 and SI engines (Ref. MACT Group 5) after October 19, 2013, in order to demonstrate that each engine is operated and maintained according to the maintenance plan required by Condition V.B.3.

p. Records of the hours of operation of the CI engines (Ref. MACT Group 2) after May 3, 2013 and SI engines (Ref. MACT Group 5) after October 19, 2013, that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. If an engine is used for demand response operation, the permittee must keep records of the notification of the emergency situation, and the time each engine was operated as part of demand response.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, 40 CFR 63.6655 (e) and (f), 9 VAC 5-50-50, Condition 20 of the 1/12/11 Permit, Condition 17 of the 6/9/10 Permit, Condition 18 of the 10/13/04

Permit as amended 3/22/10, Condition 13 of the 6/29/05 Permit as amended 3/22/10, Condition 17 of 12/20/07 Permit as amended 3/22/10, and Condition 58 of the 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10)

C. Testing

1. Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations on the emergency generators to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the DEQ.

   (9 VAC 5-80-110, Condition 57 of 7/5/05 Permit as amended 11/16/05, 10/19/07, 12/16/09 and 3/22/10, Condition 17 of the 10/13/04 Permit as amended 3/22/10, Condition 16 of the 12/20/07 Permit as amended 3/22/10, Condition 16 of the 6/9/10 Permit and Condition 19 of the 1/12/11 Permit)

2. The emergency generators (Ref. 0599-1-01, 1149-2-01, 1149-3-01, and 1149-4-01) shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

   (9 VAC 5-80-110, Condition 4 of the 1/12/11 Permit, and Condition 14 of the 6/9/10 Permit.)

D. Reporting

1. The source must submit initial notification 120 days after start-up of the emergency generators (Ref. MACT Group 3) or within 120 days after the emergency generators (Ref. MACT Group 3) become subject to the standard. The initial notification must contain all the following information:

   a. The name and address of the owner or operator;

   b. The address (i.e., physical location) of the affected source;

   c. An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

   d. A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted;

   e. A statement of whether the affected source is a major source or an area source; and

   f. A statement explaining that the stationary RICE has no additional requirements under 40 CFR 63 Subparts A or ZZZZ and an explanation of the basis of the exclusion.

One copy of the notification shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Associate Director
Office of Air Enforcement (3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110, 40 CFR 63.6645(f) and 40 CFR 63.9(b)(2))

VII. Woodworking Equipment

A. Limitations

1. Particulate matter emissions from the Cabinet Shop (Ref. 0245-1-01) shall be controlled by a fabric filter (Ref. 0245-BH1). The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110)

2. Visible emissions from the Cabinet Shop (Ref. 0245-1-01) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110, 9 VAC 5-40-2280 and 9 VAC 5-50-80)

3. Particulate matter emissions from the woodworking equipment exhaust (Ref. 0245-1-01) shall not exceed 0.05 grains per standard cubic feet of exhaust gas.
(9 VAC 5-80-110 and 9 VAC 5-50-2270)

4. The monthly use of wood furniture coatings and adhesives shall not exceed 100 gallons.
(9 VAC 5-80-110)

B. Monitoring and Recordkeeping

1. The fabric filter (Ref. 0245-BH1) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110)

2. The permittee shall perform weekly inspections of the fabric filter (Ref. 0245-BH1). The inspections shall include an observation of the presence of visible emissions and the pressure drop across the fabric filter (Ref. 0245-BH1). The presence of visible emissions shall require further investigation as to the cause of the visible emissions and corrective action shall be taken.
(9 VAC 5-80-110)

3. The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

    a. A log of weekly fabric filter inspections results including:

        i The date, time, and name of person performing each inspection;

ii The pressure drop across the fabric filter; and

iii Any maintenance or repairs performed as a result of these inspections including the date, time and person performing the repairs.

b. The monthly usage (in gallons) of wood furniture coatings and adhesives.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110)

VIII. Medical Equipment

A. Limitations

1. Visible emissions from each ethylene oxide (Ref. 1150-1-04 and 1150-1-05) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
   (9 VAC 5-80-110)

2. The ethylene oxide sterilizers (Ref. 1150-1-04 and 1150-1-05) emissions shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of the emission units. Training shall consist of a review and familiarization with the manufacturer's operating instructions, at minimum.
   (9 VAC 5-80-110 and Condition 9 of the 6/29/05 Permit as amended 3/22/10)

B. Monitoring and Recordkeeping

The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to, the records of the required ethylene oxide sterilizer operator training including a statement of time, place and nature of training provided. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 and Conditions 9 and 13 of the 6/29/05 Permit as amended 3/22/10)

IX. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
0334-1-01	Natural gas fired micro-turbine	9 VAC 5-80-720 B	NOx, VOC, and PM	30 kW
0334-2-01	Liquid fired micro-turbine	9 VAC 5-80-720 B	NOx, VOC, and PM	30 kW
0121-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		230,000 BTU/hr
0121-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		279,072 BTU/hr
0121-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		574,416 BTU/hr
0207-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,500,000 BTU/hr
0207-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,500,000 BTU/hr
0208-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		264,000 BTU/hr
0223-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		212,000 BTU/hr
0227-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
0227-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0227-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0227-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
0227-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
0227-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
0227-ICU-07	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
0227-ICU-08	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0227-ICU-09	Natural gas combustion unit	9 VAC 5-80-720 C		50,000 BTU/hr
0228-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,096,000 BTU/hr
0231-ICU-01	Nat. gas & #2 fuel oil combustion unit	9 VAC 5-80-720 C		808,000 BTU/hr
0243-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		150,000 BTU/hr
0243-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		50,000 BTU/hr
0243-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		50,000 BTU/hr
0254-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,260,000 BTU/hr
0254-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,260,000 BTU/hr
0255-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		200,000 BTU/hr
0255-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		38,500 BTU/hr
0255-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		1,650,000 BTU/hr
0255-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		30,000 BTU/hr
0257-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-07	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0257-ICU-08	Natural gas combustion unit	9 VAC 5-80-720 C		75,000 BTU/hr
0261-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		4,184,000 BTU/hr
0263-ICU-01	#2 Fuel oil & N.gas combustion unit	9 VAC 5-80-720 C		797,000 BTU/hr
0317-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		93,000 BTU/hr
0317-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		93,000 BTU/hr
0317-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		74,000 BTU/hr
0321-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,096,000 BTU/hr
0325-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		80,000 BTU/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
0329-ICU-01	Liquid Propane combustion unit	9 VAC 5-80-720 C		62,000 BTU/hr
0331-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		254,000 BTU/hr
0334-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		967,000 BTU/hr
0356-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		700,000 BTU/hr
0373-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		700,000 BTU/hr
0396-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,200,000 BTU/hr
0396-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,200,000 BTU/hr
0436-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		88,000 BTU/hr
0436-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		88,000 BTU/hr
0436-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		152,000 BTU/hr
0439-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		150,000 BTU/hr
0439-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		150,000 BTU/hr
0441-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		422,400 BTU/hr
0481-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0481-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0550-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		2,501,000 BTU/hr
0550-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		2,501,000 BTU/hr
0550-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		2,501,000 BTU/hr
0550-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0550-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0550-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0550-ICU-07	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0556-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0556-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0556-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		199,000 BTU/hr
0558-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		60,000 BTU/hr
0558-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		240,000 BTU/hr
0558-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		240,000 BTU/hr
0558-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		528,000 BTU/hr
0558-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		375,000 BTU/hr
0558-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		375,000 BTU/hr
0558-ICU-07	Natural gas combustion unit	9 VAC 5-80-720 C		260,000 BTU/hr
0558-ICU-08	Natural gas combustion unit	9 VAC 5-80-720 C		260,000 BTU/hr
0558-ICU-09	Natural gas combustion unit	9 VAC 5-80-720 C		260,000 BTU/hr
0580-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		561,600 BTU/hr
0580-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,050,000 BTU/hr
0583-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		120,000 BTU/hr
0583-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		200,000 BTU/hr
0583-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		150,000 BTU/hr
0583-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-07	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-08	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-09	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-10	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
0583-ICU-11	Natural gas combustion unit	9 VAC 5-80-720 C		90,000 BTU/hr
0583-ICU-12	Natural gas combustion unit	9 VAC 5-80-720 C		90,000 BTU/hr
0583-ICU-13	Natural gas combustion unit	9 VAC 5-80-720 C		40,000 BTU/hr
0583-ICU-14	Natural gas combustion unit	9 VAC 5-80-720 C		39,500 BTU/hr
0583-ICU-15	Natural gas combustion unit	9 VAC 5-80-720 C		250,000 BTU/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
0583-ICU-16	Natural gas combustion unit	9 VAC 5-80-720 C		250,000 BTU/hr
0583-ICU-17	Natural gas combustion unit	9 VAC 5-80-720 C		250,000 BTU/hr
0594-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		220,000 BTU/hr
0595-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		6,277,000 BTU/hr
0596-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		835,000 BTU/hr
0603-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		857,000 BTU/hr
0627-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		173,900 BTU/hr
0631-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		664,000 BTU/hr
0800-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		299,000 BTU/hr
1600-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		907,800 BTU/hr
1600-ICU-02	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		675,000 BTU/hr
1601-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		150,000 BTU/hr
1626-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		620,000 BTU/hr
1628-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
1756-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		3,450 BTU/hr
1760-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		5,600,000 BTU/hr
1760-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		5,600,000 BTU/hr
1985-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,559,000 BTU/hr
1985-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,559,000 BTU/hr
1998-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		670,000 BTU/hr
2132-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		702,000 BTU/hr
2132-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		36,000 BTU/hr
2145-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		455,000 BTU/hr
2145-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		36,000 BTU/hr
2164-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		36,000 BTU/hr
2165-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		90,000 BTU/hr
2167-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		180,000 BTU/hr
2200-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		396,600 BTU/hr
2301-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		216,000 BTU/hr
2328-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		135,000 BTU/hr
2333-ICU-01	Propane combustion unit	9 VAC 5-80-720 C		534,000 BTU/hr
2335-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2336-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2337-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2338-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		135,000 BTU/hr
2339-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2340-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2341-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2342-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2343-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2345-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		299,000 BTU/hr
2346-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		352,000 BTU/hr
2346-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		440,000 BTU/hr
2347-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		352,000 BTU/hr
2348-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2349-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2350-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2351-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2352-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2353-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2354-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
2366-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		900,000 BTU/hr
2366-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		900,000 BTU/hr
2367-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2367-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2367-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2367-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2367-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2381-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,000,000 BTU/hr
2385-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,000,000 BTU/hr
2411-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2411-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		1,582,000 BTU/hr
2415-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,139,000 BTU/hr
2415-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		50,000 BTU/hr
2417-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,139,000 BTU/hr
2417-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		50,000 BTU/hr
2422-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		130,000 BTU/hr
2428-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		369,600 BTU/hr
2430-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		311,000 BTU/hr
2434-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		480,000 BTU/hr
2447-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		36,000 BTU/hr
2447-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		36,000 BTU/hr
2447-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		120,000 BTU/hr
2448-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		38,000 BTU/hr
2448-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		240,000 BTU/hr
2566-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		750,000 BTU/hr
2566-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		2,000,000 BTU/hr
2605-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		125,000 BTU/hr
2606-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		100,000 BTU/hr
2607-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		140,000 BTU/hr
2616-ICU-01	#2 Fuel oil combustion unit	9 VAC 5-80-720 C		191,000 BTU/hr
2638-ICU-01	Propane combustion unit	9 VAC 5-80-720 C		133,000 BTU/hr
2641-ICU-01	Propane combustion unit	9 VAC 5-80-720 C		192,000 BTU/hr
2642-ICU-01	Propane combustion unit	9 VAC 5-80-720 C		257,000 BTU/hr
2801-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2801-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2802-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2802-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2803-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2803-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2804-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2804-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2805-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2805-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2806-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2806-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2807-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2807-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2808-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2808-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2809-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2809-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
2810-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2810-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2811-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2811-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2812-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2812-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2813-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2813-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2814-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2814-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2815-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2815-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2816-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2816-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2817-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2817-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2818-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2818-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2819-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2819-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2820-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2820-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2821-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2821-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2822-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2822-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2823-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2823-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2824-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2824-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2825-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2825-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2826-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2826-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2827-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
2827-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2828-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		199,990 BTU/hr
2828-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		650,000 BTU/hr
3480-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		316,800 BTU/hr
3708-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		1,050,000 BTU/hr
3708-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		510,000 BTU/hr
3708-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		510,000 BTU/hr
3761-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		2,484,000 BTU/hr
3761-ICU-02	Natural gas combustion unit	9 VAC 5-80-720 C		2,484,000 BTU/hr
3761-ICU-03	Natural gas combustion unit	9 VAC 5-80-720 C		6,100,000 BTU/hr
3761-ICU-04	Natural gas combustion unit	9 VAC 5-80-720 C		6,100,000 BTU/hr
3761-ICU-05	Natural gas combustion unit	9 VAC 5-80-720 C		600,000 BTU/hr
3761-ICU-06	Natural gas combustion unit	9 VAC 5-80-720 C		600,000 BTU/hr
5262-ICU-01	Nat. gas & #2 fuel oil combustion unit	9 VAC 5-80-720 C		750,000 BTU/hr
5262-ICU-02	Nat. gas & #2 fuel oil combustion unit	9 VAC 5-80-720 C		600,000 BTU/hr
5271-ICU-01	Natural gas combustion unit	9 VAC 5-80-720 C		645,000 BTU/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
5561-ICU-01	Nat. gas & #2 fuel oil combustion unit	9 VAC 5-80-720 C		1,225,000 BTU/hr
5561-ICU-02	Nat. gas & #2 fuel oil combustion unit	9 VAC 5-80-720 C		1,225,000 BTU/hr
0228-IEG-02	CI emergency electric generator (<500 hr/yr) - Portable	9 VAC 5-80-720 C		400 kW
0230-IEG-01	CI emergency electric generator (<500 hr/yr) - Portable	9 VAC 5-80-720 C		18 kW
0232-IEG-01	CI emergency electric generator (<500 hr/yr) - Portable	9 VAC 5-80-720 C		100 kW
0256-IEG-01	CI emergency electric generator (<500 hrs/yr)	9 VAC 5-80-720 C		400 kW
0580-IEG-01	CI emergency electric generator (<500 hrs/yr)	9 VAC 5-80-720 C		420 kW
1157-IEG-01	CI emergency electric generator (<500 hrs/yr)	9 VAC 5-80-720 C		400 kW
1994-IEG-01	CI emergency electric generator (<500 hr/yr)	9 VAC 5-80-720 C		400 kW
2385-IEG-01	CI emergency electric generator (<500 hr/yr)	9 VAC 5-80-720 C		470 kW
0596-PRI-02	Printing operations	9 VAC 5-80-720 B	VOC	

Petroleum Storage Tanks

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
Free-Standing Aboveground Storage Tanks						
A0126-1	275	Steel	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0210-2	550	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0228-1	550	Steel Diked	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0228-2	1,000	Steel DW	Motor fuel	Diesel	9 VAC 5-80-720 B	VOC
A0256-1	650	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0256-2	550	ACT 100 DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0269-1	180	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0269-2	250	Steel DW	Equipment	Diesel	9 VAC 5-80-720 B	VOC
A0527-1	550	Steel Diked	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0580-2	1,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0583-1	550	Steel	waste oil	waste oil	9 VAC 5-80-720 B	VOC
A0583-2	550	Steel DW	Motor fuel	Diesel	9 VAC 5-80-720 B	VOC
A0597-1	100	Steel DW	Motor fuel	Diesel	9 VAC 5-80-720 B	VOC
A1148-1	275	Steel	fire pump	Diesel	9 VAC 5-80-720 B	VOC
A1155-2	2,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1157-1	550	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1626-1	1,000	Steel DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
A1628-1	550	Steel DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
A2381-1	550	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5576-6	550	Steel DW	motor fuel	Diesel	9 VAC 5-80-720 B	VOC
Underground Storage Tanks						
U0228-4	10,000	Steel coated with fiberglass	Motor fuel	Gasoline	9 VAC 5-80-720 B	VOC
U0231-2	2,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0263-2	2,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0331-1	550	ACT 100U Steel DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0334-2	5,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0580-3	2,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0583-1	10,000	STIP3	Motor fuel	Gasoline	9 VAC 5-80-720 B	VOC
U0583-2	10,000	Steel coated with fiberglass	Motor fuel	Diesel	9 VAC 5-80-720 B	VOC
U0603-2	1,000	Steel	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U0631-2	1,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U1142-2	4,000	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1143-2	1,500	ACT 100 DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1150-1	6,000	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1150-2	15,000	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
U1172-2	1,000	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1176-2	1,000	ACT 100 DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1181-2	550	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1196-2	1,000	Fiberglass	Generator	Diesel	9 VAC 5-80-720 B	VOC
U1600-1	6,000	Fiberglass	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U1600-2	4,000	Steel	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U2616-2	1,000	ACT 100 DW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U5561-1	4,000	Steel SW	Heating	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U5575-1	30,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U5575-2	30,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U5576-4	3,000	Steel StiP3	Gen-Boiler	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U7103-10	25,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U7103-11	25,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U7103-12	25,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U7103-5	5,000	Fiberglass DW	Generators (2)	Diesel	9 VAC 5-80-720 B	VOC
U7103-9	25,000	ACT 100U Steel DW	Heating	Distillate Oil	9 VAC 5-80-720 B	VOC
U7533-5	20,000	Fiberglass DW	Boiler/Gen	#2 Fuel Oil	9 VAC 5-80-720 B	VOC
U7533-6	10,000	Fiberglass DW	Boiler/Gen	#2 Fuel Oil	9 VAC 5-80-720 B	VOC

Above Ground Storage Tank Integral to Generators

A0068-1	500	Steel Diked	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0083-1	65	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0094-2	240	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0125-1	75	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0131-1	380	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0201-1	290	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0207-2	380	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0210-1	200	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0210-3	52	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0210-4	300	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0214-1	275	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0215-1	900	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0235-2	800	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0256-3	300	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0256-4	425	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0264-1	400	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0267-1	1,500	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
A0401-1	110	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0446-1	396	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0528-1	100	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0534-1	100	Steel	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0550-2	500	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A0594-1	180	DW	Fire Pump	Diesel	9 VAC 5-80-720 B	VOC
A0599-1	8,350	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1142-1	940	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1142-2	5,880	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1146-1	660	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1149-1	250	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1149-2	5000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1149-3	5000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1149-4	1260	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1149-5	1,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1154-1	200	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1155-1	1100	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1161-1	4,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1176-1	75	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1194-1	1,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1600-3	112	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1600-4	147	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1760-1	6,480	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1985-1	2,500	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1994-1	750	Steel Diked	Generator	Diesel	9 VAC 5-80-720 B	VOC
A1998-1	2,000	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A2371-1	660	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A2368-1	322	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A2462-1	112	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A3656-1	119	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A3708-1	150	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A3755-1	308	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A3759-1	308	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A3761-1	1,695	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5576-7	224	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5271-1	250	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5307-3	500	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5307-2	500	Steel SW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5307-1	250	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A5502-1	189	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A7147-1	393	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
A7185-1	2,400	Steel Diked	Generator	Diesel	9 VAC 5-80-720 B	VOC

Aboveground Day Tanks for Generators

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
D0256-1	118	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1142-1	50	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1142-2	50	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1142-4	50	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1143-1	30	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1150-1	300	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1150-2	275	Steel	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1155-1	300	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1181-1	40	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1196-1	100	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D1196-2	50	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D5575-1	275	Steel DW	Generator	Distillate Oil	9 VAC 5-80-720 B	VOC
D7103-2	300	Steel DW	Generator	Diesel	9 VAC 5-80-720 B	VOC
D7533-1	25	Steel DW	Generator	Distillate Oil	9 VAC 5-80-720 B	VOC

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

X. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified	-	-

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XI. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      i Exceedance of emissions limitations or operational restrictions;

      ii Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

      iii Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the DEQ, within four daytime business hours after discovery, of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken,

and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XII.C.3 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9

VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
   (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
   (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in the permit.

   d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F and H.
(40 CFR Part 82, Subparts A-F and H)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)